THE ZOOLOGICAL EXPLORATION OF SOUTHERN AFRICA 1650-1790

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De Zoologische Verkenning van Zuid Afrika 1650-1790

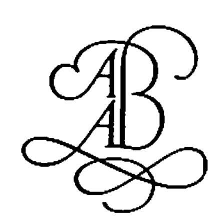
(met een samenvatting in het Nederlands)

PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de Rijksuniversiteit te Utrecht,
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LEENDERT CORNELIS ROOKMAAKER
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Promotor: Prof. Dr. P. Smit
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Table of contents

Introduction

The Cape of Good Hope was one of the first regions in Africa where many new and interesting animals were observed and described. Serious attempts to collect the different kinds and to classify them started in the second half of the 18th century. Before that time, the animals were seen and named, but there was no interest to provide fuller descriptions and to sort out their relationships. This book deals primarily with those 18th century travellers who tried to collect zoological data in the southern part of Africa and who recorded their observations. From an historical perspective, it was tried to document the importance of their work for the progress of zoology in the western world. The aim of this study was to discover which animals were seen, where they were seen, how they were described or drawn, and most importantly, how these results were communicated to scientists and others and how they were incorporated in the available classifications and theories.

The main part of this book details the work of seven travellers at the Cape of Good Hope. They came from different countries and had somewhat different interests: Johann Reinhold Forster from Germany, Robert Jacob Gordon from Holland, Francis Masson and William Paterson from England, Anders Sparrman and Carl Peter Thunberg from Sweden and François Levaillant from France. The records they left about their journeys combine many aspects and relate to the people, animals, plants, landscapes, geological features etc. of the regions which they traversed. Their results in the field of botany have often been dealt with in some detail. This is fortunate, because these contributions have drawn attention to these early scientific endeavours. The zoological aspects of these journeys were not totally neglected, but they have enjoyed much less attention. Many valuable pieces of information are available, and they can best be appreciated in their proper historical context.

The research for this study was done on the basis of manuscripts, drawings and literature. Some of these sources are rather inaccessible to the average zoologist. Manuscripts and drawings are usually unique and valuable and can only be examined in their depositories. While access generally is no problem, it takes time and money to go and see them. They cannot be transported from one place to another (except through copies), which makes comparisons between collections often rather cumbersome. Books in themselves do not have this restriction. Many of the older ones, even some of the more recent ones, however, are quite scarce and they can only be consulted in a limited number of libraries. Loans of old material like this can only be arranged after considerable difficulty, if at all. Some publications take time to understand. A set of Buffon's *Histoire Naturelle* is available in many libraries, but through a lack of indexes or a poor understanding of the meaning of the French names, it often takes a long search to retrieve a certain passage. I have used many of such 'obscure' books, like Allamand's new edition of the *Histoire Naturelle*, Vosmaer's descriptions of animals in the collections in The Hague, Thunberg's theses, etc. To many zoologists, these various sources will be inaccessible or unknown. For that reason, I have tried to document the available material in some detail to help those who have less time or inclination to go through the historical record. It is due to this rather elaborate documentation that I was unable to discuss all implications in full. Some people may feel that I have not given enough detailed information about the contents of the various collections of drawings or the manuscripts, because they have been described in very succinct manner. This could not be changed due to the mass of available, and largely unknown, material. If I were a painter, I probably would be inclined to paint with a fine brush. At present, only a large one was obtainable and the strokes were less defined than I had intended.

This book mainly deals with the seven travellers mentioned above. They did not, however, live in a vacuum and therefore other early sources about animals seen or recorded from the Cape of Good Hope have been reviewed. This review was started with publications of 1650, around the time of the first permanent Dutch settlement in that part of Africa. There are, of course, many earlier records of animals in southern Africa, but it was assumed that it would not help to understand the 18th century travellers better by going further back in time. The final date lies around 1790. This was a random choice which does not relate to any important historical event. It does not mean that later records are not included. People like Thunberg and Levaillant continued to publish results of their journeys until well into the 19th century. These have all been discussed below. The final date 1790, however, excludes those travellers who did not start their journeys into the Cape interior until that year or later.

This book is divided into three parts. *Part 1* (Chapters 1-5) is a review of the sources relating to travellers in southern Africa from 1650 to 1790. They were included if their accounts contained information about the fauna and if their results were published, either in their own time or more recently. No manuscript material was consulted about these journeys, except in the case of those treated in Part 2.

Part 2 (Chapters 6-12) is the heart of this study. It gives detailed documentation about those seven travellers who were interested in the fauna and who have left extensive manuscript or published sources. The available material is quite diverse and its extent differs considerably between them. It was tried to present the information in each case in roughly the same sequence. Each of the Chapters 6-12 starts with a short introduction ('background') in which the relevant documents about that particular person are reviewed. This is followed by a biographical section, the extent of which is related to the explorer's relevance to zoologists, and inversely related to existing accounts. Next the bibliography of the traveller is discussed, usually only as far as his publications contain notes about the South African fauna. I have discussed both the bibliographical details (often hard to find otherwise) and the scientific contents. The published works are followed by a treatment of those which remained in manuscript, including letters, diaries, notes and

pictorial material. All collections of drawings are described in a similar way. The drawings are identified by numbers (corresponding with the pages if bound, or with the sequence in which they became known), preceded by a letter or a set of letters (like FC, PC, UBL etc.). These letters are used for easy reference, explained in the relevant sections and briefly identified in the list of abbreviations. The entry of each drawing usually first presents the current identification of the animal (scientific name in italics), followed by the text found on the drawing or plate (in quotation marks) and any further discussion where necessary. I have not been able to be very accurate in the classification of the pictures. In some cases I did not consult them directly, but had to work from photographs or other copies. I have used two general terms: 'drawing': for all unprinted pictures including pencil sketches, ink drawings, watercolours, etc.; and 'engraving': for all printed plates like woodcuts, copper engravings, etc. If I do mention a special category, this was either obvious or taken from another author, and it can be used interchangeably with drawing or painting.

The next section gives details about the animals which the travellers saw during their expeditions into the interior as recorded in their books or manuscript journals. The presentations follow the sources closely. All localities where animals were seen are numbered separately in each chapter and identified by map coordinates. The species reported in each separate locality are listed in the same sequence in which they appear in the original. Admittedly, the drawback with this method is that mammals, birds, reptiles, fishes and invertebrates are all mixed. However, the number of species seen in one locality is usually quite small and to arrange them by classes does not make for easier accessibility. The entries per species are brief, starting with the current identification (scientific name) and followed by the name given in the original, a page reference and any notes in case the description in the book or journal needs some comment.

The final section(s) of the chapters in Part 2 deal with the collections of mammals and birds made by the travellers while in South Africa. The object here is to document with which animals they returned home and to discover what happened to these specimens. Very few of them can still be recognised today. However, in many cases these animals brought from Africa were studied in Europe and they were responsible for a better understanding of the African fauna.

Part 3 (Chapters 13-14) deals with the same data as presented in the other parts, but arranged per species, with in some cases a discussion of the historical and taxonomic implications of the results.

Although the title of this book refers to the exploration of all South African animals, I have been mainly concerned with the mammals and birds. This, of course, constitutes the bulk of the data. The other animals are mentioned in the historical chapters of Parts 1 and 2. Their identification, however, usually follows earlier analyses, and I have not tried to discuss the results concerning these species further. It is necessary, even in the case of the mammals and the birds, to give a warning about all identifications. One cannot be more exact than the original sources. These include names of animals without descriptions, or with short or inaccurate descriptions, and pictorial representations without any indication about the size, or the place of origin of the specimen. Some collections of drawings were studied from black-and-white photographs while the original was in colour. This lists just a few of the dangers encountered when interpreting historical works. It must always be assumed that the original authors were correct and that they knew what they were talking about. It is easy to distinguish an elephant or a giraffe, but in complex groups with many similar species it is often practically impossible to reach a conclusion without further assumptions.

Several books were used in the process of identifying the animals. For mammals I have relied on Smithers (1983, 1986) and Roberts (1951). In the case of birds, I mainly used *Roberts' Birds of Southern Africa*, the 4th edition edited by McLachlan & Liversidge (1978) and later the 5th edition edited by Maclean (1985). This was supplemented by reference to Newman (1983) for South African birds, and the more general works by Mackworth-Praed & Grant (1962-1963) and *The birds of Africa* edited by Brown et al. (1982) and Urban et al. (1986). For snakes, Broadley (1983) proved a good guide.

The scientific or binominal names were a major point of consideration. I have followed the latest accepted authorities given below. In a few cases the research done showed that an earlier name is available or that another name is more relevant. These cases are discussed, but no action is taken and the currently accepted names are used even if I would propose that a change is inevitable. My work was primarily historical. Any nomenclatorial or taxonomic implications can later be dealt with by the experts on the various groups if that is considered necessary. The nomenclature of the South African mammals is that found in the recent checklist by Meester et al. (1986). The names of other mammals were taken from Honacki et al. (1982). The nomenclature of the South African birds follows the *S.A.O.S.Checklist* (Clancey 1980) with the changes advocated in its first update (Clancey et al. 1987). The names of other birds were compared with Howard & Moore (1984). The snakes were named following Broadley (1983), the other reptiles according to Welch (1982). The identifications of the fishes and invertebrates (and the plants) follow the available reports as indicated in the various chapters.

A stumbling block in the use of historical records for modern taxonomic or zoogeographical purposes is often that it is difficult and time-consuming to trace the routes of the early travellers. For South Africa, one can use the historical gazetteer by Skead (1973) written for the zoologist. For the routes of the 18th century travellers discussed here, Forbes (1965) presents the best guide. That work is totally indispensible and without its many details (updated by some later contributions by the same author) one would still struggle to know where those people travelled. I have also used the series of topographical maps (scale 1: 250 000) published by the Government of South Africa.

Another difficulty which had to be overcome was one of language. The seven travellers studied in Part 2 left records in English, French, German, Latin, Dutch and Swedish. In all cases, where quotations or descriptions based on original material were necessary, I have used the original in which the source was written. I have assumed that most readers will be able to read the English, French, German and Latin texts. The Dutch quotations have all be translated in notes (unless they consist of names only). For Swedish sources I too had to rely on translations to which I have referred, although in some cases also the original Swedish is given.

Acknowledgements

The research which grew into this dissertation began many years ago. It must have been at the end of the 1960's that my father, professor of art history at the Free University in Amsterdam, came home with some photographs. He had been discussing my growing interest in the rhinoceros with Mr M.D.Haga of the Rijksmuseum, Amsterdam. Mr Haga gave me those photographs of the rhinoceros drawings contained in that beautiful collection of drawings now known as the *Gordon Atlas*. At that time, those pictures meant nothing to me. I was unable to fit them into my general knowledge about the rhinoceros. They were then filed away. Several years later, I had the unexpected opportunity to lunch at the Zoological Society of London with Dr A.J.E.Cave, the champion of rhinoceros anatomy whose numerous papers on that subject are quite unique. Some of the drawings in the Gordon Atlas included anatomical sketches. Dr Cave kindly agreed to cooperate and he wrote a detailed morphological commentary published in 1977 together with my less mature notes on Gordon and his place in rhinoceros history.

In that same period, as a student of biology at the Free University of Amsterdam, I came into contact with Dr R.P.W.Visser who worked at the Biohistorical Institute of the University of Utrecht. When the time had come to choose a specialisation within the study of biology, I was happy for the opportunities offered at the Biohistorical Institute. I was allowed to work on the history and the contents of the Gordon Atlas in more detail. Both Prof.P. Smit and Rob Visser helped me in those months with encouragement and advice. The project was finished in 1979, but there had to be a corollary because Gordon could only be understood in a broader historical setting. I was given a chance to visit South Africa to study the various documents related to the exploration of the Cape fauna. I was shown much hospitality and could share the knowledge of some people interested in their history.

After completing my studies at the University of Utrecht in 1983, I have been employed by the 'Stichting Redt een Kind' (Help A Child Foundation), an organisation dedicated to help the poor children of the world. In the course of the past years I have spent most time in countries like Kenya, Uganda and India. The board of this organisation has allowed me a period of three months every year to complete the present work and I am very thankful for their consideration.

In the course of this research I have enjoyed assistance from many people and hospitality in many institutions. Without this, I could not have completed this book. My gratitude to all is beyond expression. I will list all those who helped me in various ways below, according to country, in an alphabetical order.

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Amsterdam: Akademie van Wetenschappen, Artis-Bibliotheek, Rijksmuseum and Rijksprentenkabinet, library of the University of Amsterdam, Vereeniging voor de belangen van de boekhandel, Zoölogisch Museum.

's Gravenhage: Algemeen Rijksarchief, Gemeente-Archief, Koninklijke Bibliotheek, Koninklijk Huisarchief.

Haarlem: Teylers Museum.

Leiden: Rijksmuseum van Natuurlijke Historie, library of the University of Leiden.

Rotterdam: Museum Boymans van Beuningen.

Utrecht: Library of the University of Utrecht.

Kew: Royal Botanic Gardens.

London: British Library, British Museum, British Museum (Natural History), Council for World Missions, Linnean Society, Royal College of Surgeons of England, Royal Society.

Stafford: Staffordshire Record Office.

Edinburgh: Royal Scottish Museum.

Chalons-sur-Marne: Archives de la Marne et de la région de Champagne-Ardennes.

Paris: Archives de Paris, Muséum National d'Histoire Naturelle.

Sèvres: Manufacture National.

Göteborg: Universitetsbibliothek.

Lund: Zoological Museum.

Östersund: Landsarkivet.

Stockholm: Ethnographical Museum of Sweden, Universitetsbibliothek, Zoological Museum.

Uppsala: Universitetsbibliothek, Zoological Museum.

Copenhagen: Zoological Museum.

Gotha: Forschungsbibliothek.

Canberra: National Library of Australia.

Sydney: State Library of New South Wales.

Cape Town: Government Archives, Library of Parliament, South African Library, William Fehr Collection.

Johannesburg: Africana Museum, Brenthurst Library, Public Library.

Cambridge, Mass.: Museum of Comparative Zoology.

New Haven: Yale University Library.

Washington: Smithsonian Institutions Libraries.

ABBREVIATIONS

ARA – Algemeen Rijksarchief (State Archives), The Hague.

BMNH – British Museum (Natural History), London.

c.s. – coloured sketch.

DA – Descriptiones Animalium by J.R.Forster (1844).

KVA – Kunglika Vetenskaps Akademien (Royal Academy of Sciences), Stockholm.

l.c. – loc.cit., loco citato.

MNHN – Muséum National d'Histoire Naturelle, Paris.

ms. – manuscript.
Mt. – mountain.
pl. – plate.
repr. – reproduced.
RMNH – Rijksmuseum van Natuurlijke Historie, Leiden
sup. – supplement, supplément.
u.s. – uncoloured sketch.
VOC – Verenigde Oost-Indische Compagnie (Dutch East India Company).
VRS – Van Riebeeck Society, Cape Town.

Books/Manuscripts

Descriptiones Animalium – J.R.Forster (1844).
NNBW – Nieuw Nederlandsch Biografisch Woordenboek.
Ois.Nouveaux – F.Levaillant 1801, Histoire naturelle d'une partie d'oiseaux nouveaux et rares.
Ois.Afr. – F.Levaillant, 1796-1812. Histoire naturelle des oiseaux d'Afrique.
Ois.Paradis – F.Levaillant, 1806. Histoire naturelle des oiseaux de paradis.
Oiseaux d'Afrique – F.Levaillant, 1796-1812. Histoire naturelle des oiseaux d'Afrique.
Perroquets – F.Levaillant, 1804-1805. Histoire naturelle des perroquets.
Promerops – F.Levaillant, 1807. Histoire naturelle des promerops.
Solander ms. – Solander's 'Animalia Javensia & Capensia', see 5.70.

Acronyms

The main collections of drawings, engravings or manuscripts are differentiated by a set of letters usually followed by a number indicating the folio or sequence in the collection. The sections where they are described in detail are given in brackets.

AM – Africana Museum, Johannesburg: collection of 40 drawings attributed to Claudius (3.2.3).
B – Masson's drawings in British Museum 199*B4 (8.4).
CT – Library of Parliament, Cape Town: watercolours connected with Levaillant (12.8).
FC – Forster collection of 271 drawings by George Forster in British Museum (Natural History), London (6.5.1).
FG – Drawings by George Forster in Gotha (6.5.2).
G – Drawings by R.J.Gordon in British Museum, London (6.6.1 and 7.4 no. 12).
GA – Gordon Atlas in Rijksmuseum, Amsterdam (7.6).
GM – Gordon Manuscripts, mixed collection of notes by R.J.Gordon in Brenthurst Library, Johannesburg (7.5).
IPA – 'Icones Plantarum et Animalium' in Africana Museum, Johannesburg (3.2.2).
KB – Collection of watercolours connected with Levaillant, in Koninklijke Bibliotheek, The Hague (12.11).
PA – Paterson Albums in Brenthurst Library, Johannesburg (11.5).
RMNH (+ number) – Collection of watercolours connected with Levaillant in Rijksmuseum van Natuurlijke Historie, Leiden (12.10).
RPK – Rijksprentenkabinet, Amsterdam: drawings connected with Levaillant (12.12).
SAM – South African Museum, Cape Town: collection of drawings attributed to Claudius (3.2.5).
SAPL – South African Public Library, Cape Town: collection of drawings attributed to Claudius (3.2.4).
SP – Schumacher Paintings in the Swellengrebel Archives, Hilversum (5.75).
TC – Trinity College, Dublin: collection of notes and drawings attributed to Claudius (3.2.1).
UBL – Universiteitsbibliotheek Leiden: watercolours connected with Levaillant (12.9).
Yale – Yale University Library, New Haven: volume of engravings connected with Levaillant (12.13).

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South African Library, Cape Town (figs. 2-5); Mr. N.J.A.C. Swellengrebel, Hilversum (fig. 6); Svenska Litteratursallskapet, Helsinki (fig. 7); the Trustees of the British Museum (Natural History), London (fig. 11, 20); Forschungsbibliothek, Gotha (figs. 10, 12, 13, 14, 15); Africana Museum, Johannesburg (figs. 19, 20, 22, 23); Brenthurst Library, Johannesburg C 1988 (figs. 24, 25, 87, 91, 92); Brenthurst Press, Johannesburg (figs. 63, 64, 86); Museum Boymans-van Beuningen, Rotterdam (fig. 78); President and Council of the Royal College of Surgeons of England (fig. 86); British Library, London (fig. 95); Librarian and Keeper of the Hunterian Books and Manuscript of the Glasgow University (figs. 146, 147); the Rijksmuseum, Amsterdam (figs. 21, 26-77, 81, 82, 90, 132-143, 145, 148-152, 154-162, 164, 165); the Rijksmuseum van Natuurlijke Historie, Leiden (figs. 110, 111, 117-121, 163); the Koninklijke Bibliotheek, The Hague (figs. 122-126).
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Summary

The purpose of this study was fourfold: (1) to establish who contributed to the discovery and the differentiation of the animals living in the southern part of Africa; (2) the extent to which visits to the Cape of Good Hope or expeditions into the interior resulted in zoologically relevant material like drawings, specimens or written descriptions; (3) the extent to which these results were communicated to Europe; and (4) how they were incorporated into the knowledge about the classification and zoogeography of the various species. The review of data began with those produced around 1650 and ended in 1790. Those relating to the period 1650-1760 were discussed mainly to serve as background to the later results, and as such the analysis was limited to books and papers appearing in that period and to manuscripts and drawings which were edited or printed more recently. The work done in the years 1760-1790 was studied in more detail based on the records left by seven important travellers and their contemporaries.

Part 1 (Chapters 1-5) presents a review of the available information. The contributions are arranged following the date on which the results were first published, or, if no publication appeared, by the first year in which the Cape was visited. In each case the available records are briefly analysed and their zoological contents are summarized. Progress was slow in the century after 1650 with a limited increase of understanding concerning the differentiation of African animals between themselves and from their European counterparts. The results of the expedition organised by Simon van der Stel in 1685 are given in Chapter 3 due to the large number of drawings made during the journey by Hendrik Claudius.

Part 2 (Chapters 7-12) treats seven people in more detail. They were selected because they showed considerable interest in the fauna observed in southern Africa and because they left quite a number of books, manuscripts and drawings.

Johann Reinhold Forster and his son George Forster (Chapter 6) visited the Cape for two short periods in 1772 and 1775 during their journey with captain James Cook. Although they did not travel inland, they collected a considerable amount of zoological material. George made drawings, his father attempted to classify the animals. Many of the results were published, often in unexpected places like annotations to translations. Forster's major revision of the South African animals was published as late as 1844 while some other descriptions (like that of the wildebeest) never appeared.

Robert Jacob Gordon (Chapter 7), an officer stationed in Cape Town, 1777-1795, made five long expeditions into the interior. He was interested in the fauna, especially the mammals. He left a collection of mixed notes including the expedition reports, as well as a large number of drawings (known as the *Gordon Atlas*) including 254 showing different animals. Gordon tried to differentiate between the animals encountered. His zoological drawings, attributed to Johannes Schumacher with his help, are listed with the information written on them. The animals mentioned in his travel journals are identified. Gordon sent various notes, drawings and specimens of animals to Holland, where they were received by A.Vosmaer and J.N.S.Allamand. Vosmaer, director of Prince Willem V's cabinet and menagerie, published some of Gordon's results in his work on the animals in those collections. Allamand, professor at the University of Leiden, incorporated many of Gordon's data in his new edition of Buffon's *Histoire Naturelle* published in Amsterdam.

Francis Masson (Chapter 8), botanical collector for Kew gardens, spent two long periods at the Cape: 1772-1775 and 1786-1795. He did little on animals, but some were included in his published report of 1776. He also left some drawings made or bought at the Cape. Part of this material was added to the collection of Joseph Banks.

Anders Sparrman (Chapter 9), a student of Linnaeus at the University of Uppsala, was at the Cape in 1772 and in 1775-76. He made one long expedition into the interior. Interested in zoology, he later published many small papers about some species of mammals and a book on his travels (1783) with similar attention. The animals mentioned in these publications are reviewed. Sparrman brought some specimens to Sweden, many of which were given to the Kg.Vetenskaps Akademien in Stockholm, and a few of them are still preserved.

Carl Peter Thunberg (Chapter 10), another student of Linnaeus, was at the Cape in 1772-1775 and he went on three expeditions. After his return he became professor at the University of Uppsala where he worked on his botanical and zoological collections and published many of his results. He used Linnaean nomenclature consistently. His work includes a revision of South African mammals published in 1811 and an enumeration of Cape birds (unpublished until now).

William Paterson (Chapter 11) made four expeditions in the South African interior in 1777-1780. He published an account of these journeys in 1789, which is also known in a slightly different manuscript. He collected drawings, bound as the *Paterson Albums*, which include many depictions of mammals and birds.

François Levaillant (Chapter 12) made two expeditions during his stay in South Africa 1780-1785. He was the first to show a special interest in the collection and study of birds. After his return to France, he published two books about his travels in which some animals are mentioned briefly. The ornithological results of his journeys combined with an examination of specimens available elsewhere in Europe, were the basis of several large illustrated books. The most important of these at present is his *Histoire Naturelle des Oiseaux d'Afrique* (1796-1812). These books are difficult to use today due to his exclusive use of French names and doubts about his accuracy. It is shown that notwithstanding some shortcomings, his work was important because many birds were described for the first time. The majority of these were named scientifically in the beginning of the 19th century. Hence, many of Levaillant's birds are types and need careful attention.

The drawings used in the production of Levaillant's books were hitherto unknown, except one collection with topographical, ethnological, botanical, and a few mammalogical drawings. There are details about another four collections of drawings and one of engravings with manuscript notes connected with Levaillant's work. Most of the drawings were discovered in books by Levaillant once in the library of Joan Raye in Amsterdam. These include 242 watercolours in his copy of Levaillant's travels now in the library of the University of Leiden, and 53 watercolours in his copy of Levaillant's *Oiseaux d'Afrique* now in the library of the Rijksmuseum van Natuurlijke Historie, Leiden. The other three collections include one of 44 items in the Royal Library, The Hague with some similarities with the one in the Leiden University, a few watercolours in the Rijksmuseum, Amsterdam and a volume of engravings assembled by Levaillant in the Yale University library. All this material is described and the zoological depictions are identified.

Levaillant brought a large number of specimens back to Europe. These were distributed among several people like Jacob Temminck, Joan Raye, Boers, and L.F.Holthuyzen in Holland, and Louis Dufresne in Paris. The documents relating to these collections were studied. Apparently, they all owned large numbers of birds probably collected by Levaillant in South Africa. Only very few of these can still be traced today.

Part 3 (Chapters 13-14) discusses the information included in Parts 1 and 2 for each species of mammal and bird. In each case, the information concerning the discovery, classification, nomenclature, distribution, and the available specimens is reviewed if sources are available. Some comments on nomenclature include 4 on mammals and 16 on birds which may interfere with current names or interpretations.

Samenvatting

Het doel van deze studie was vierledig: 1, om vast te stellen wie er hebben bijgedragen tot de ontdekking en differentiatie van de dieren in het zuidelijke deel van Afrika; 2, in hoeverre de bezoeken aan de Kaap de Goede Hoop of expedities in het binnenland resulteerden in zoologisch relevant materiaal zoals tekeningen, huiden of andere dierlijke resten, en beschrijvingen; 3, in hoeverre deze resultaten naar Europa werden meegenomen of doorgegeven; en 4, hoe deze resultaten werden ingelijfd in de kennis over de indeling en zoogeografie van de verschillende soorten. Het overzicht van de gegevens begon met berichten uit 1650 en eindigde in 1790. De rapporten uit de periode 1650-1760 werden vooral behandeld om een achtergrond te schetsen voor de latere resultaten. Om die reden werd de uitwerking beperkt tot boeken en artikelen die in die periode verschenen en tot manuscripten en tekeningen die meer recent werden uitgegeven. Het werk dat in de jaren 1760-1790 werd gedaan is meer in detail geanalyseerd aan de hand van de dokumenten die door zeven reizigers en door enkele tijdgenoten werden achtergelaten.

Deel 1 (hoofdstukken 1-5) geeft een overzicht van alle aanwezige informatie. De bijdragen werden gerangschikt volgens het jaar waarin de resultaten voor het eerst werden gepubliceerd, of, indien geen uitgave volgde, volgens het eerste jaar waarin de Kaap werd aangedaan. Per reiziger of commentator werden de aanwezige rapporten kort aangeduid en hun zoologische inhoud werd samengevat. Er was maar weinig verbetering van inzicht in de verschillen tussen de Afrikaanse dieren onderling en tussen hen and hun Europese verwanten, met name in de eerste honderd jaar na 1650. Hoofdstuk 3 behandelt de resultaten van de expeditie die in 1685 door Simon van der Stel werd georganiseerd omdat er veel gegevens zijn, met name vele tekeningen gemaakt door Hendrik Claudius.

Deel 2 (hoofdstukken 7-12) behandelt zeven mensen gedetailleerder. Deze werden uitgekozen omdat ze een redelijke interesse hadden in de dierenwereld van Afrika en omdat ze hun resultaten bewaarden in boeken, manuscripten of tekeningen.

Johann Reinhold Forster en zijn zoon George Forster (hoofdstuk 6) waren tweemaal kort aan de Kaap, in 1772 en 1775, tijdens hun reis met kapt. James Cook. Hoewel ze zich niet in het binnenland waagden, waren ze toch in staat een grote hoeveelheid zoologisch interessant materiaal te verzamelen. George maakte tekeningen, terwijl zijn vader probeerde om de dieren te identificeren. Een groot deel van de resultaten werd later gepubliceerd, maar vaak op onverwachte plaatsen zoals voetnoten in vertalingen. Forster's grote revisie van de Zuid-Afrikaanse dieren verscheen pas in 1844, terwijl enkele andere beschrijvingen (zoals die van de gnoe) nooit uitkwamen.

Robert Jacob Gordon (hoofdstuk 7), een officier gelegerd in Kaapstad, 1777-1795, maakte vijf grote expedities in het binnenland. Hij was geinteresseerd in de fauna, vooral in de zoogdieren die hij onderweg tegenkwam. Van hem zijn bekend een verzameling notities waaronder de rapporten over zijn reizen, en een groot aantal tekeningen (bekend als de *Gordon Atlas*), waarvan er 254 dieren voorstellen. Gordon probeerde om de verschillende diersoorten uit elkaar te kennen. Zijn zoologische tekeningen worden hier opgesomd met de erop geschreven teksten. Deze tekeningen worden toegeschreven aan Johannes Schumacher met Gordon's hulp. De dieren die Gordon noemde in zijn reisjournalen worden geïdentificeerd. Gordon verzond een aantal brieven met notities, tekeningen en exemplaren van dieren naar Nederland. Daar werden ze ontvangen door A.Vosmaer en J.N.S.Allamand. Vosmaer, direkteur van het kabinet en de menagerie van prins Willem V, publiceerde enkele gegevens verkregen van Gordon in zijn werk over de diersoorten in die twee collecties. Allamand, professor aan de Universiteit van Leiden, heeft veel gegevens van Gordon toegevoegd aan zijn nieuwe editie van Buffon's *Histoire Naturelle* die in Amsterdam verscheen.

Francis Masson (hoofdstuk 8), botanisch verzamelaar voor de plantentuin in Kew, woonde twee lange periodes aan de Kaap: 1772-1775 en 1786-1795. Hij heeft maar weinig gegevens over de dieren verzameld. Enkele werden vermeld in zijn gepubliceerde reisverslag van 1776. Hij was ook verantwoordelijk voor het bijeenbrengen van een aantal tekeningen, die hij aan de Kaap maakte of kocht. Een deel hiervan werd toegevoegd aan de verzameling van Joseph Banks in Londen.

Anders Sparrman (hoofdstuk 9), student van Linnaeus aan de Universiteit van Uppsala, verbleef aan de Kaap in 1772 en 1775-1776. Hij maakte één lange expeditie. Hij had een grote interesse in zoologie en later schreef hij vele kleine artikeltjes over verschillende soorten zoogdieren en een reisverslag (1783) waarin hij ook van zijn interesse getuigde. De dieren genoemd in deze werken worden besproken. Sparrman heeft een aantal dieren meegenomen naar Zweden, waarvan het merendeel werd gegeven aan de Kg.Vetenskaps Akademien in Stockholm (een deel wordt nog bewaard).

Carl Peter Thunberg (hoodstuk 10), ook student van Linnaeus, was in 1772-1775 aan de Kaap en hij nam deel aan drie expedities. Na zijn terugkeer in Zweden, werd hij professor aan de Universiteit van Uppsala. Daar heeft hij de rest van zijn leven gewerkt aan zijn botanische en zoologische collecties en veel van zijn resultaten werden gepubliceerd. Thunberg gebruikte de nomenclatuur geintroduceerd door Linnaeus in al zijn werk. Zijn publikaties worden besproken. Hieronder is een revisie van alle Zuidafrikaanse zoogdieren van 1811. Daarnaast maakte hij een lijst van de Kaapse vogels, die hier wordt uitgewerkt.

William Paterson (hoofdstuk 11) maakte vier expedities in het Kaapse binnenland tussen 1777 en 1780. Hij schreef een verhaal over deze reizen in 1789, hetgeen ook in een iets verschillend manuscript bekend is. Hij verzamelde tekeningen, samen bekend als de *Paterson Albums*, waaronder vele van zoogdieren en vogels.

François Levaillant (hoofdstuk 12) maakte twee reizen tijdens zijn verblijf in Zuid Afrika 1780-1785. Hij was de eerste die een speciale belangstelling toonde voor het verzamelen en bestuderen van de vogels. Na zijn terugkeer in Frankrijk, publi-

ceerde hij twee boeken over zijn expedities waarin verschillende dieren kort genoemd worden. De ornithologische resultaten ervan en een studie van de vogels die elders in Europa bewaard werden resulteerden in een aantal grote geillustreerde vogelboeken. De belangrijkste hiervan is op dit moment zijn *Histoire Naturelle des Oiseaux d'Afrique* (1796-1812). Deze boeken zijn moeilijk te gebruiken omdat Levaillant alleen franse namen noemde en omdat er vaak getwijfeld is aan de juistheid van de beweringen. Ondanks deze tekortkomingen, was zijn werk toch belangrijk omdat erin vele vogels voor het eerst beschreven werden. Het merendeel daarvan werd later in het begin van de 19e eeuw benoemd, waardoor veel van Levaillant's vogels typen zijn geworden en daarom onze bijzondere belangstelling verdienen.

De tekeningen die gebruikt moeten zijn voor de productie van Levaillant's boeken waren tot nu toe onbekend, behalve een collectie met topografische, ethnologische, botanische en een paar zoogdierkundige tekeningen. In dit werk worden details gegeven over nog vier collecties tekeningen en één met gravures en manuscript teksten, die verband houden met het werk van Levaillant. Het grootste deel van deze tekeningen werd ontdekt in boeken die eens het eigendom waren van Joan Raye in Amsterdam. Hieronder zijn 242 waterverf tekeningen in diens exemplaar van Levaillant's reisverslag, nu bewaard in de bibliotheek van de Universiteit van Leiden, en 53 waterverf tekeningen in zijn exemplaar van Levaillant's *Oiseaux d'Afrique*, nu in het Rijksmuseum van Natuurlijke Historie te Leiden. De overige drie collecties zijn die van 44 tekeningen in de Koninklijke Bibliotheek, 's Gravenhage die in enkele opzichten lijkt op die in de Leidse Universiteit, een paar waterverf tekeningen in het Rijksmuseum, Amsterdam, en een band met gravures die door Levaillant werden uitgezocht, in de bibliotheek van Yale University. Al deze tekeningen worden beschreven en de dieren eruit geidentificeerd.

Levaillant kwam terug met een aanzienlijke hoeveelheid vogelbalgen. Deze werden verdeeld onder een groot aantal mensen, waaronder genoemd zijn Jacob Temminck, Joan Raye, Boers en L.F.Holthuyzen in Nederland, en Louis Dufresne in Parijs. De verschillende dokumenten over deze 18e eeuwse collecties zijn bestudeerd. Deze mensen hebben alle een aantal vogels bezeten die waarschijnlijk door Levaillant in Zuid Afrika werden geschoten. Slechts enkele hiervan zouden vandaag nog aanwezig zijn.

Deel 3 (hoofdstukken 13-14) geeft de informatie van delen 1 en 2 opnieuw, maar nu apart voor elke soort zoogdier of vogel. Daarbij werd met name aandacht geschonken aan de aanwezige gegevens betreffende de eerste beschrijving, classificatie, nomenclatuur, verspreiding en de in Europa aanwezige exemplaren, naar gelang er daarover iets werd gevonden. Deze discussies laten zien dat er ten aanzien van 4 zoogdieren en 16 vogels misschien wijzigingen zouden moeten worden aangebracht in de interpretaties van hun huidige naamgeving.

PART 1

Reports on South African Animals

CHAPTER 1

Introduction to the reports

It is the purpose of this first part of the book to review in succinct form the contributions made to the zoological exploration of southern Africa before 1790. It was attempted to include all authors who mentioned animals in their reports about the Cape of Good Hope, as well as the notes by other travellers which initially remained in manuscript, but which were published more recently. As explained in the introduction, 1650 was taken as a subjective starting point and 1790 as a final date.

When one examines the 65 reports containing zoological data from the period 1650-1750 treated in Chapters 2 to 4, one must admit that there was little 'progress'. There was an apparent lack of interest to discover the characteristics of the African animals, to differentiate them from the European species. Maybe the data were insufficient. Most travellers gave names of animals supposed to inhabit the southern part of Africa, sometimes they added a short description or a comparison with an European animal. Even with our present detailed knowledge of the appearance of the African species, it is often very difficult to know exactly which species were meant. Certainly the lists of names presented by the early authors must have been more bewildering to people who stayed at home and who really received very little information to distinguish the animals – just assuming that someone had wanted to do so.

The first report considered in Chapter 2 is that by Hondius published in 1652. Considering the date of publication, he presented a remarkable enumeration of species. It was noteworthy for its length, less so for the details about the appearance of the animals. In the course of the century which followed, surprisingly little was added. The enumerative descriptions of the Cape fauna by Kolb (1719) and Valentijn (1726) were a little longer with a few additional details, but there was hardly what one could call an improvement of understanding. Maybe an easy way to analyse how much the reports of the early travellers added to the knowledge in Europe, would be to look at the *Systema Naturae* by Linnaeus (1758). His book is well suited for this purpose because it was published in the middle of the 18th century, it was meant to summarize all known species, and the animals are named in a way which is still understandable today. On the negative side one must add, however, that Linnaeus was not as well read in zoology as he was in botany and sometimes he chose an incorrect area of distribution. A numerical survey will suffice at present. Linnaeus (1758) listed 20 mammals and 35 birds from Africa, only a few of which were recorded specifically from the Cape of Good Hope. He mentioned another 10 species or so which were in fact African, but not recorded as such (see Thomas 1911 for such mammals).

In the years which followed the *Systema Naturae*, there was an increasing interest to survey the faunas of particular regions. An important factor in this changing attitude was the fact that a standard of comparison had been provided, both by Linnaeus and by his French counterpart and opponent, the count of Buffon. The latter also tried to compile a list of all known animals, which should be accompanied by complete descriptions. Buffon indicated his animals only by French names. With the publication of the books of Linnaeus and Buffon, it was possible to discover if a certain animal had yet been described or not. The Cape of Good Hope was one of the regions where it was possible to explore the country and to expect a rich harvest of unknown or undescribed animals. It took time to see results, but those pioneers who did most in the exploration of the South African fauna are treated in detail in Part 2 of this book.

This is not the first time that the books and reports of the travellers who visited the Cape region in the 17th and 18th centuries are reviewed. I have been thankful for the work of some of my predecessors, among whom may be mentioned the publications on early travellers by Becker (1987), Engels (1951), Moritz (1915) and especially those by Raven-Hart laid down in a large number of small papers and collected in his *Cape of Good Hope 1652-1702* (1971). While Raven-Hart gave an accessible review of what is available about that period, it has the drawbacks that all text was translated into English and that it was not written with the zoologist in view. It takes a lot of reading to find relatively few data, and for that reason it is unlikely that his work will be used to its full capacity. The translations into English are helpful, but it required Raven-Hart to translate the vernacular names of the animals. This implies interpretation. In some cases one may wonder if the correct identification and hence the correct translation was chosen.

For my purpose, I have tried to consult the first editions in the original language of the travel accounts. This was possible in the majority of cases, although some of these early books are extremely rare and seldom available. The animals are listed here in the languages of the original author. This gives a chance to look at changes of names in time which will interest the philologist, and it enables one to see more easily where the names of animals were copied from earlier books, a common practice in those days. The main disadvantage of this procedure is that one needs to know all these languages to use the lists quickly. This cannot be overcome, although the (assumed) meaning of each name can be retrieved through the index and the taxonomic list in the next section of this chapter.

The study of these 17th and 18th century reports was meant primarily to put the activities of the later explorers in their proper historical perspective. I would be surprised if additions could not be made. One often gets the feeling that much more material exists, both in print and in manuscript. One instance of a fruitless search must be mentioned because it is typical of the false hopes which are part of historical research. While visiting Uganda in 1984, I happened to pick up a copy of André Brink's *An instant in the wind* (first published in 1976). Brink wrote about a Swedish traveller, Erik Alexis Larsson who explored the Cape interior around 1750 and in whose journal 'every buck or beast of prey shot was measured and dissected and described in detail'. That sounded interesting. Larsson's journal would have been recently discovered in Livingstone House, the headquarters of the London Missionary Society. Of course, I imme-

diately wrote to the L.M.S. (now the Council for World Mission) and was kindly informed that I was not the first to enquire. Unfortunately, no such volumes like Larsson's journal had been discovered in the L.M.S. Archives. The whole story was invented – but not so identified in Brink's book.

That more material is available, however, is obvious. Reports without zoological content have, of course, been deleted. It is quite likely that there is important additional material in, for instance, the Algemeen Rijksarchief (ARA) or the Cape Archives. Maybe the present review will provide a foundation which will stimulate further research to aid our understanding of the discovery of African animals in the 17th and 18th centuries.

The sources of the information have been mentioned in detail. In most cases I have listed the names of the animals taken from the authors mentioned. These lists are edited in three ways: first, the names are given as they appear in the original, but all without the use of capital letters (even in German); secondly, the names are repeated, but not the additional information which was included by the original author; thirdly, if two or more names apply to one species, they are connected by =. Usually the original explanations consisted of some notes about the appearance of animals, or anecdotes about the species. In case some particularly interesting report was given, this has been summarized in brackets and in English.

The reports included in this part were written by three categories of people: residents, callers and compilers. The residents at the Cape of Good Hope usually were servants of the Dutch East India Co. (VOC) who remained there for at least several years. A few of them had a chance to travel inland and their journals were submitted to the company. Much of this material did not appear in print until recently, but it provides valuable information especially about the distribution of some animals. The callers at the Cape constitute by far the most numerous group. They included various types of people who were on their way to the east or returning home. Many of them only stayed a few weeks at the Cape. In that short period they cannot have had much opportunity to explore the country. Many of them, however, published accounts of their journeys and thus helped to spread some information about the African fauna. The third category is formed by the authors of the geographical compilations who did not actually travel. They based their accounts on previously published books or on reports told by those who returned. It is not always easy to distinguish between those who travelled and who did not. That is one of the reasons why some of these compilations are included here.

It is clear from the above that most of the accounts about African animals were not based on personal observation. There were some five possible sources of information:

1. Observations of animals around the Cape,
2. Stories by residents,
3. Accounts in earlier published sources,
4. Stuffed specimens in the Cape 'museum',
5. Living animals in the Cape 'menagerie'.

The first three sources are obvious, but something may be added about the early museum and menagerie in Cape Town. Rudner (1982) presented many of the pertinent published records, some of which are also included in the following chapters. Some animal skins could be seen both in the first Fort completed in October 1654 and in the new one completed in 1676. A lion was killed on 16 June 1656 and its skin was preserved: it was 5 ½ feet (173 cm) long excluding the tail of 3 ½ feet (63 cm) and 3 ½ feet high (van Riebeeck 1954, II:41). Some porcupine quills were found in its stomach which occasioned some stories that the lion had been killed by that animal. This lion and the porcupine were frequently mentioned in the literature. Another was a zebra. Valentijn ([1726] 1971:86) described his visit to the Fort (in English translation): 'When one enters the Fort through the gate (wherein now and then one or two lion-skins are to be seen hanging up), one finds a large square, pretty long and beautifully wide, where as a rule a large ostrich is to be seen walking about.'

Around 1700, a small exhibit of animal remains was started in a house in the company's gardens. There are only a few indications about the species which could be seen. The most detailed of these is the description by Valentijn ([1726] 1971:108) referring to his visit of 1714. He noted the following mounted specimens: a pair of 'rheen' or 'rheebokken': height of a large stag, cross-stripes on the haunches; long and thick spiral horns; brownish red in colour, which probably were koedoes *Tragelaphus strepsiceros*; an 'eland' *Taurotragus oryx*; a small 'rhinoceros' *Diceros bicornis* with two small horns; a 'rossen bok', larger than a 'stag', horns of 1 ½ foot length and closely spiralled, possibly a hartebeest *Alcelaphus buselaphus*; a young 'zeekalf' and a large 'zeekoe' weighing 1300-1400 pounds, *Hippopotamus amphibius*; a 'wilde ezel' *Equus zebra*; and a male and female 'leeuw' *Panthera leo*.

A small collection of living animals and birds was maintained in a special part of the company's gardens from the time of W.A.van der Stel, around 1700, to the beginning of the 19th century. It may be assumed that most animals in this menagerie only lived for a few years, and that the collection was constantly changing. It did not only include South African species, but also some brought from the east. There usually were some antelopes, zebras, ostriches and water-fowl as will be noted in various places in the course of this book. In the 1770's, Sparrman recorded the presence of a warthog, many springbok, some ostriches and an exotic cassowary (Sparrman 1977, II:29,71,98). Collins (1798) gave a 'complete' catalogue consisting of 12 species (5.91). The description by Ekeberg (1785: 46-47) referring to his visit of 1770 may be given here: 'Im Thiergarten fand ich einen schönen Zebra und Hirsche mit krummen geschlungenen zweyzakkigen Geweihen, wie auch Rehe und Steinböcke. Ein grosser künstlicher Teich war mit Pelikanen und allerhand wasservögeln bedeckt. Strausse und Kasuare spazierten daneben in grosser Gesellschaft. In einer andern Abtheilung des Gartens sah man allerhand andere Vögel, welche ihre Nester in dem dazu gepflanzten Gebüsche hatten: da waren auch Gänse und fremde Enten, und Guineische Hüner und Fasanen. In eigenen Behältnissen waren besonders einige schöne Gattungen Vögel aufbewahrt: dergleiche waren hellblaue grosse Tauben und hellrothen Augen und grossen Federbusch, der Sekretärvogel, welche ein Paar Federn an jedem Ohr trägt, einen grauen Leib hat, und mit seinen schwarzen Schenkeln und langen weissen Beinen läuft, als ob er sehr geschäftig wäre.'

The reports which follow are presented in a roughly chronological order. This follows the date of first publication if the person wrote down his notes. If there was no published account, the date of the first visit or of the main expedition was taken to establish the order.

NOMENCLATURE

The early authors called the animals by their vernacular names in their own language. This makes a serious attempt to identify the species rather hazardous. It is remarkable how little detail about the Cape animals can be found in these early sources, and even less of that is at all useful. The names are mentioned, but the readers are left to wonder what the animals were supposed to look like. The general impression must have been that the African fauna did not differ much from the European one because the same names were used. Because many of these early names have somehow persisted in the South African vernacular to the present day, it is possible to make reasonable guesses which animals were meant by particular names. This procedure has been supplemented by some indications in the sources, and by the comments of some editors, especially Skead (1980) and Raven-Hart (1971 in his index).

The names of the animals appear in 7 languages: German, French, English, Dutch, Latin, Swedish and Danish. All variations have been listed in the index of names in this section, with the addition of a number which refers to the taxonomic list of species which precedes the index. In this way, it should be possible to find which species probably were meant by an author. All names recorded by the authors discussed in Chapters 2, 4 and 5 have been included, if the original or another contemporary edition could be consulted. This procedure was chosen because many names are easy to recognise and they do not always need to be identified constantly.

The information in the taxonomic list must be used with caution. Many identifications can only be guesses. More seriously, one cannot always be sure that the authors meant the same species with the same name. Many of these people stayed at the Cape for a relatively short time and they only recorded what they heard. For instance, a 'steenbok' would appear to indicate the antelope now still known by that name (*Raphicerus campestris*), but it is quite likely that it was sometimes used for the klipspringer (*Oreotragus oreotragus*). Many such confusions of names or species must exist, but they can never be known on the basis of the little information provided in the books and reports.

SYSTEMATIC LIST OF ANIMALS

This list presents the identification of the animals named in vernacular in the books and reports reviewed in Chapters 2, 4 and 5. Each entry starts with a number, to which reference is made in the index of names which follows hereafter. The number is followed by the scientific name of the species or higher taxon, and by the vernacular names which are referred to that taxon in alphabetical order. A few notes are appended. The order of the species is systematic for the mammals and the birds following the classifications found in Meester et al. (1986) and Clancey (1980).

Mammals

1. Chiroptera: fledermäuse, vleermuis.
2. *Papio ursinus*: aap, affe, babians, babouin, baboon, baviaan, baviaen, bavian, bavianen, bavianer, fabianen, monkey, pavianen, singe.
   – Some of these names might apply to the baboon as well as the next species.
3. *Cercopithecus aethiops*: see (2) and cercopitheci.
4. *Lycaon pictus*: chien, chien sauvage, honden, wilde hond, wilde hund.
   – Some references may indicate domestic dogs.
5. *Vulpes chama*: foxes, refver, renard, vos, vulpes.
6. *Canis mesomelas*: jacal, jack-alls, jackalls, jackhals, jakhals, jakhalzen, zackals.
7. *Aonyx capensis*: lutra, otter.
8. *Mellivora capensis*: ratel, ratelmaus, ratelmuis, ratelthier.
9. *Ictonyx striatus*: blereau puant, bunsum, stinkbilsen, stinkbinksem, stinkdachs, stinkpinsen.
10. *Arctocephalus pusillus*: loup marin, meer-löwe, ours marins, phoque, rappe, robben, sea-bear, sea-dog, sea-rabbit, sea-wolf, seal, seehund, see-löwe, seerob, skiälarne, zee-beren, zee-honden, zee-leeuw, zee-robben, zee-rop, zee-wolven.
    – All names of seals probably refer to this species, the only common resident at the Cape. A few might be the *Mirounga leonina* (see Raven-Hart 1971 index).
11. *Genetta* sp.: bisamkatze, bizamkat, cevet-kat, civetes, civet-kat, civet-katze, muscaliat katze, muskeljaatkat, musqueliatkatze, putorii, ziebet.
12. *Suricata suricatta*: zenik.
13. *Herpestes ichneumon*: dachshund (?), ichneumon, iltis, mausehund, muishond, wieseln.
14. *Crocuta crocuta*: bonte tyger, hyaena, loup, lupus, lupus cervarius, tygerwolf (in Kolb), wolf, wolff, wolven.
    – These names usually indicate the spotted hyena, sometimes it could be *Hyaena brunnea* (Skead 1980:24).
15. *Panthera pardus*: leopard, leoparden, leoparder, leoparten, luipaard, luipaart, luiper, luipert, luypaard, luypaart, luypaert, lupard, luparden, lupert, panterthier, panther, pantherae, pantherdier, ringstreaked tiger, tieger, tieger-wolf, tiger, tiger-thier, tigir, tigre, tigrides, tyger, tygerdier, tyger-thier, tygers, tygerwolf, tygre.
    – In some sources there was confusion, because in one sentence sometimes, tiger, panther and/or leopard are found. In a few cases maybe the cheetah *Acinonyx jubatus* was meant.
16. *Panthera leo*: leeuw, leeuwen, leeuwin, leones, lewen, lion, löw, löwin, løfver, lyon.
17. *Felis caracal*: losch, luchs, lynx, rode katten, rothe katze.
18. *Felis serval*: boskat, boschkat, chat-tigre, puschkatze, tiegerbuschkatze, tigercat, tyger-bosch-kat, tiger-busch-katze, tyger-cat, tygerpuschkatze.
19. *Felis lybica*: chat sauvage, felis silvaticus, wild cat, wilde katten, wilde katze.
20. Cetacea: baleines, walfisch, walvis, walvissghen, whales.
21. Cetacea, not identified: souffleur.
22. *Physeter macrocephalus*: pots-hoofd, pritskopf.
23. *Delphinus delphis*: braun-fische, bruyne-vissghen, delphine, delphiner, dolfyn.
24. *Balaena glacialis*: noordkaper, nord-caper.
25. *Loxodonta africana*: elephant, elephanten, elephanter, elephantes, eliphant, helffanten, olifant, oliphant, olyphant.
26. *Diceros bicornis*: naashörner, nasen-hörner, nasen-thier, nashorn, nashorn-thier, nasshörner, neushoorn, neushoren, reinocerot, reinoster, renocer, renoster, reynoster, rhenosserus, rhenoster, rhinoceros, rhinocerot, rhinocerotes, rhinoster, rhinosterus, rinoceros, rinocerotes, rinozer, rynoster.
27. *Equus zebra*: agrestes equi, âne, âne sauvage, asne sauvage, ezel, ezelspaard, gestreepte ezel, muylesel, onager, onagri, sebra, striped ass, vilde heste, waldesel, wild ass, wiide esel, wilde ezel, woodass, zebra, zebre, zembra.
    – In theory, wild horse indicated *E.quagga*, wild ass *E.zebra*. However, all indications of horses, asses and donkeys appear to have been used for both species (Skead 1980:21). Penzhorn (1969) advocated the name 'kwagga' for all South African zebras in Afrikaans, differentiated by adjectives.
28. *Equus quagga*: cheval, cheval sauvage, kwagga, paard, quacha, quagas, wild horse, wild paard, wild peerd, wild pferdt.

29. *Procavia capensis*: badger, dachs, das(sen), daszges, daxi, marmot, meles, murmeldier, murmelthier, steendassen.
30. *Orycteropus afer*: aardvarken, cochon de terre, erdschweine, tamandua.
31. *Phacochoerus aethiopicus*: apri, boschverken, sanglier, sanglier sauvage, schwein, wild schwein, wild varken.
    – The name is too vague to distinguish the warthog (*P.aethiopicus*) and the bushpig (*Potamochoerus porcus*) as discussed by Skead (1980:382). The warthog may have been more numerous or more easily seen.
32. *Hippopotamus amphibius*: hipopothamer, hippopotame, hippopotami, hippopotamus, hypopotame, manatee, manitee, paepoagus, sea-cow, sea-horse, seekuh, søehefte, vache marine, wasser-pferdt, zeekalf, zeekoe, zeepaard, zee-paerden.
33. *Giraffa camelopardalis*: camel, camelopardales, camelopardalis, giraffe, kameel, kameelpeerd, kameleopardalis.
34. Bovidae, general terms for antelopes: antelopes, böcken, bokken, caprae, gazelles, wild goats.
35. *Connochaetes gnou*: auerochs, aueros, gnou, wild beest (see Skead 1980:14).
36. *Alcelaphus buselaphus*: bubalis, cerf, cerf du Cap, cervi, deer, haertebeest, hart, harte-beest, hartenbeest, herten, hinds, hirsch, rossen bok, stag.
    – Some names like deer may sometimes apply to antelopes in general.
37. *Damaliscus dorcas*: bonte bok, bonte hartebokken, bunde böcke, bundte böcke, gefleckte bock.
38. *Sylvicapra grimmia*: duiker, duikerbok, duyker, taucher-bock, untertauchende bock.
39. *Antidorcas marsupialis*: bouc sauteur, hircus rupisultoris, springbock, springbok.
40. *Oreotragus oreotragus*: klippspringere, klippsteiger, klipspringer, stengetter.
41. *Raphicerus campestris*: steenbock, steenbok, steinbock, rupicaprae.
42. *Raphicerus melanotis*: graue bock, greissbock, grysbok.
43. *Pelea capreolus*: chevreuils, rebock, reebock, reetje, reh, rehbock, rehebock, rhee, rheebock, rheebok, rheekalf, roebuck, roedeer, roe-hindes.
44. *Hippotragus leucophaeus*: blaue böcke, tzairan.
45. *Oryx gazella*: gämsen, gems, gemsbock, gemsbok, ibices, pasan.
46. *Syncerus caffer*: boeuf, büffel, büffelochs, buffel, buffle, wild cows, wilde koe, wilde koebeesten.
47. *Tragelaphus strepsiceros*: coedoe, coudouks, koedoe, wilde bok, wilde böcke.
48. *Taurotragus oryx*: eland, elanden, elandt, elandtdier, elant, elende, elends-thier, elendt, elendthier, elks.
49. *Redunca arundinum*: rietbok.
50. *Ovis* sp.: mouton (tame sheep?).
51. *Pedetes capensis*: große gerbo.
52. *Hystrix africaeaustralis*: echini, egel, egelschwein, eisenschwein, eyserschwein, histrix, porc-épic, stachelschwein, stekelvarken, yzere varkens, yzervarkens.
53. Bathyergidae: land-moll, maulwurf, mol.
54. Muridae: muizen, ratten.
55. *Oryctolagus cuniculus*: caninchen, caniner, conies, kaninchen, konynen, lapin.
56. *Lepus* sp.: haas, haes, harar, hare, hasen, hazen, leporis, lièvre.
57. Mammal, not identified: bähren, bear, beer, biørne, oresitrophi, wild bears.

Birds

58. *Struthio camelus*: austruche, autruche, ostrich, ostridge, ostriges, strauß, strauß-vogel, struisvogel, struss-fugel, struysvogel, struthiocameli, vogel-strauß, vogel-struis, vogel-struys.
59. *Spheniscus demersus*: bigiwinnen, peguin, peguyn, penguin, penguins, penguini, piegwieren, piguin, pikowynen, pinguin, pinguwyn, pinguyn, withoofd.
60. *Diomedea exulans*: alcatraçes, fluweelen mouwen, mangas de veludos.
    – A large grey gull, see Lobo (1984:22 note).
61. *Daption capense*: faysons, see-tauben, stahr-moebigen, zee-duif.
62. *Pelecanus* sp.: kropf-ganss, kropgans, leffel-gans, löffelgans, onocrotali, pelican, pelikanen.
63. Sulidae (gulls etc.): antenayas.
64. Sulidae: garagians.
65. Sulidae, general terms: allbere moeben, blaue moeben, gulls, kleine meeuwen, kleyne witte meeuwen, malle meeuwen, meuben, meven, moeben, see-schwalbe.
66. *Morus capensis*: jan-van-genten, jan-van-galen, kaapse duif, kaapvogels, kaep-vogel, witte mouw.
    – These names are generally used for gulls and some of the descriptions do not fit this species.
67. *Phalacrocorax* sp.: cormorant, duikelaar, duycker, duyker, dyver, gavoityns, gespikkelde meeuw, maalgasen, malagas, mallagas, mallegas, mergi, pintado bird, scholfer, see-krähe, seeraben, sgholfer, taucher, wasserduyker, urinatrices (Some uncertain).
68. *Anhinga melanogaster*: lepelaar, löffler, schlangen-fresser, slangenvreter.
69. Ardeidae: ardeas, ciconiae nigrae, heron, reiger, reiher, reyger.
70. *Ardea* sp.: kroonvogel, paon, pauw, pavones, pfau, wilde pauw, wilde pfau, wild peacock.
71. *Geronticus calvus*: kalkoen, welsche hüner.
72. *Platalea alba*: white peacock, witte lepelaar.
73. *Phoenicopterus* sp.: flamengo, flaminck, flamingo, flamingosvogel, flaminken, flemengo, flemingo, pasche.
74. *Alopochen aegyptiacus*: anseres, berg-gans, cape geese, gans, ganse, gass, geese, oie sauvage, rot-ganzen, wasser-gans, watergans, wilde gans.
75. Anatidae: anates, ankor, deuchlinge, ducks, eenden, endte, endtvogel, rock-ducks, schnee-endten, schwarze endten, wilde endte, wilde ente.
76. *Tadorna cana*: berg-eenden, berg-endte, geelschnabel, gelbbecke.
77. *Anas* sp.: widgin.
78. *Anas* sp.: smient.
79. *Anas* sp.: querquedulae, talingen, teal, teling.
80. *Anas acuta*: penelopes, pylstaart, pyl-steerten.
81. *Anas smithii*: halve eenden, schlüppen, schnobel, shoveler, slobben.
82. *Sagittarius serpentarius*: secretaries, sekretärvogel.
83. *Gyps* sp. (coprotheres?): dreckvogel, dunghill-fowl, geyer, gieren.
84. Accipitridae, general terms: adler, arend, beinbreeker, eagle, endten-stösser, glador, graue adler, kuhchendieben, steinbreeker, strondjager, strondvogel.
85. *Haliaeetus vocifer*: meer-adler.
86. *Accipiter* sp.: habichte, hökar, havikken, hawk.
87. *Falco* sp.: crowned falcon, falcken, falcon, falk, falkar, valk.
88. *Francolinus capensis*: faisans, faisant, faizant, fasanen, feasants, fesant, phaisans, phaisant, phasanen, phasianen, phasiani, pheasant, vesant.
    – Sometimes a wrong translation of 'Faysons' (61).
89. *Coturnix coturnix*: caille, grouse, kwakkelen, quakkelen, quartel, wachteln, wagtels.
90. *Numida meleagris*: guinea hens, tarentaalse hoender.
91. *Anthropoides paradisea*: cassowary (?), craanvogel, cranes, cranninchen, grues, kraan, kraanvogel, kranen, kranich-vögel, kranniche.
    – Species cannot be identified, but this one is the only crane occurring near the Cape. Raven-Hart suggested a confusion with the heron.
92. *Rallus cinereus*: marsh-fowl, riet-schnepffen, rietsnip, rietvogel.
93. *Gallinula chloropus*: fulicae, meerkoet, moorcock, wasser-hüner, waterhoenders.
94. *Eupodotis* sp.: auerhahnen, birkhähne, corhans, knorchans, knorhaan, knorrhannen, knorrhenne, korhaan, korhahne, korhoenders, korn-hüner, trappe.
95. Scolopacidae: curlew, steinbicker, strandlauffer, strandlooper, strandloper, strand-vogel, uberlaufer, vanelli.

96. *Gallinago* sp.: pful-schnäpfen, poelsnip, pulschnepfen, schneppen, snip, wasser-schnäpfen, watersnip, water-snipe.
97. *Gallinago nigripennis*: holz-schnepffen, houtsnip, woodsnipe.
98. *Pterocles* sp.: feldhühnern, feld-hüner, gallinages minores, namaqua patrijs, patrys, partridge, perdices, perdrix, reb-hüner.
99. Columbidae: berg-duif, berg-taube, bosduif, busch-tauben, dove, tauben, vilde dufvor, wilde taube.
100. *Columba arquatrix*: pigeon ramier.
101. *Streptopelia capicola*: tortelduif, turtel-tauben.
102. *Cuculus* sp.: edolio.
103. Strigidae: eulen, huhu, nachteulen, ululae, uylen.
104. *Merops* sp.: bienen-fresser, muckenhonigfresser.
105. *Upupa* sp.: hoepen, gibitzen.
106. Picidae: spechten.
107. Passeriformes: (general or unknown terms): cysjes, emmerlingen, emmeritzen, gelblingen, grasmücke, grünling, häufflinge, koornvogels, mossen, mus, mussghen, roodbaardjes, roodborsjes, roodstaartjes, siskin, sparrow, zaunschlupffern, zeisgen, zeisslein.
108. Alaudidae: lark, leeu-werken, lerchen.
109. Hirundinae: bergschwalben, hausschwalben, hirundines, schwalben, swaluw.
110. *Dicrurus* sp.: blau-vogel.
111. *Corvus capensis*: crow, jackdaw, kaauw, kraaj, krahen, krai, thole.
112. *Corvus albus*: elstern, exters, hetzen, magpies.
113. *Corvus albicollis*: dominee, kolkraben, kräkor, raaf, raben, raven.
114. *Parus* sp.: mees, meisen, mésange.
115. Turdidae: amseln, amstlar, hackspikar, kramtsvogel, lysters, meerlen, wein-trossel.
116. *Motacilla* sp.: bachsteltzen, quikstaarten, wagtail.
117. *Sturnus vulgaris*: spatzen, sperling, spreeuw, spreuben, spreuwen, staaren, staren.
118. *Promerops* sp.: blumen-spechte, colybrides, honigvögel, honingpikker, socker-sugare, zuckersauger.
119. Estrildidae: fincken, finken, putter, vink, vlasvinken.
120. *Serinus* sp.: canarien-vogel, canary-bird, kanarie-vogels, kanarivogel, kanary-vogel, papagaayen, parakeet, parret, parrot, serinus.
121. *Estrilda astrild*: roodbek, rothalein, rothbeckjes.
122. Bird, not identified: more-hen.
123. idem: kernbeisser, steinbeisser.
124. idem: adderhals, adderling, land-tong, langzungen, apodes, boscades, cephi, fidiculae, glaucia, napes.

Reptiles

125. Ophidia: céraste, schlangen, slangen.
126. idem (not identified): aspis, augen-schlang, baumschlange, blindschleichen, brandschlange, durstschlange, haarschlange, prester, schietslang, vierige slang, wasser-schlang.
127. *Bitis cornuta*: hoornslang, serpent cornu.
128. *Naja nivea*: cobra di capello, hair-slang.
129. *Chamaeleo* sp.: caméleon, chameleon, chamalion.
130. Testudines: erdschildpad, landschildpad, schildkröte, schildpad(den), schildkröten, waterschildpad, zeeschildpad.
131. Lacertilia: eidechsen, eydechsen, hagedissen, lézard, schwarze eidere, svarta odlor.

Amphibia

132. Procoela: fröschen, kikvorschen.
133. Salamandroidea: salamanders.

Pisces

The species are given in alphabetical order.
134. *Anguilla mossambica*: paaling, palling.
135. *Austroglossus pectoralis*: meerzungen, tong.
136. *Barbus* sp.: karpffen.
137. *Barbus andrewi*: barmer.
138. *Barbus burgi*: grundel, grundelingen.
139. *Clinus superciliosus*: klipp-fisch, klipvisch.
140. *Hippocampus* sp.: meer-pferd, wasser-pferd, zee-peerdekens.
141. *Johnius hololepidotus*: kaapse zalm, lachs, salm.
142. *Lithognatus lithognatus*: bream, steenbraessem, steenbrassem, steinbrass, steinbrassem, steinbeissen.
143. *Liza ramada*: harder, harter, herder, mullet.
144. *Merluccius capensis*: cabeljau, kaapse kabeljauw.
145. *Narke capensis*: kraekvisch, krampvisschen, roch, roch-fisch, torpilje, torpedo, traegvisch, trillfisch.
146. *Naucrates ductor*: lootsmanneken, loots-männlein.
147. *Pomatomus saltator*: elfft, elft, else, springer.
148. *Raia* sp.: hottentot fisch, hottentot visch, hottentotts fisk.
149. *Rhabdosargus* sp.: stompneus, stumpffnasen.
150. *Rhinobatis rhinobatis*: sandcnijpers, zand-knyper, zand-kruypers.
151. *Sardinops ocellata*: kaapse pekelharing.
152. *Scomber* sp.: macrel.
153. *Sebastosemus capensis*: jacob evertzen, rode steenbrazem, steinbrachmen.
154. *Thunnus thynnus*: meer-schwein, porcupisses, sea-hog, tonneinfisch, tonyn, zee-varken.
155. *Trachurus trachurus*: mass-bancker.
156. Fishes, various unidentified species: aufblaser, barben, barse, benneit, fliegende fisch, fünf-finger-fische, gold-fisch, haai, haring, hay, hayen, hechte, huygen, irlitzen, meer-wolff, pagger-fisch, pampusvisch, puitaal, rothmans, sardeller, sardinen, sartellen, seeschwalben, silber-fische, snoeken, speringe, spiering.

Invertebrates

Listed by classes alphabetically.
157. Annelida: blutsaugern, zuigers.
158. Arachnida: spinnen, spinnekoppen.
159. Arachnida, Scorpiones: schorpioen, scorpioen, scorpionen, skorpionen.
160. Asteroidea: meersonnen, meersternen, zeesterren.
161. Bivalvia, Lamellibranchia: mosselen, mussles, paarlen, perlenmuscheln, perlen-schnecken, riviermosselen, wasser-muscheln.
162. Idem: austern, oesters, klipp-kousen.
163. Bivalvia: nautili, nautilius.
164. Idem: alikrücken, hoorntjes, meerdöpffe, zee-horenkens.
165. Cephalopoda: sea-cat, zee-kat.
166. Crustacea: crab, krabben, rivierkrabben.
167. Idem: hummer, krebse, kreeften, muschel-krabben, muschelkrebse, rivierkreeften, see-krebse, scheere, taschen-krebse, wasser-krebse.
168. Idem, *Homarus capensis*: lobster.
169. Diplopoda: duizendbenen, tausend-beine.
170. Echinoidea: zee-egels.
171. Hymenoptera: ameisen, wespen.
172. Insecta, Coleoptera: gold-käfer, gras-grüne käfer, grasgroene kefer, käfer, kefer, wasser-käfer.
173. Insecta, Dictyoptera: kakkerlakken, schaben.
174. Insecta, Diptera: bienen, bij, honing-bij, blinden, fliegen, mücken, muggen, paarde-vliegen, groene vliegen, grüne fliegen, vliegen.
175. Insecta, Lepidoptera: motten, rauppen, rupzen.
176. Insecta, Mallophaga: läufe, luizen, wantzen, weegluizen, wegläufe.
177. Insecta, Orthoptera: heuschrecken, sprinkhanen.
178. Insecta, Siphonaptera: erd-floh, floh, vlooyen.
179. Mollusca: clipconten, igel-schnecken, kegel-schnecken, meerigel-schnecken, oel-schnecken, schnecken, schrauben-schnecken, weg-schnecken.
180. Polychaeta: holzwurm, houtworm, kalander, koornworm, kornwurm, regen-wurm, rothe wurm, wasser-wurm, würme.
181. Not identified: meer-floh, meer-lauss, meer-spritzen, wassergrillen, wasser-maus.

Index of names

The numbers behind the names refer to the identification in the taxonomic list preceding this index.

Reports on South African animals 1650-1700

The various publications or other documents are here presented in a chronological order as explained in Chapter 1. The biographical and bibliographical details have been kept as brief as possible, because this information is not pertinent to this study and it can usually be found in the works by Raven-Hart (especially 1971) or Gunn & Codd (1981).

2.1 Hondius, 1652

The *Klare Bescryving van Cabo de Bona Esperanca* was published in 1652 without the author being identified. It is, however, assumed that it was compiled by the publisher, Jodocus Hondius (b.1622). It was reprinted in 1880 and an English translation appeared in 1952. The book starts with descriptions of the various islands and regions, all located in the neighbourhood of the Cape of Good Hope. In the second part there is a more detailed chapter about the animals found at the Cape. Because the same species are mentioned in both parts and because the geographical indications are not very helpful, I here follow the enumeration in the second part and include the places mentioned earlier in the book where applicable. This compilation appeared in 1652, the year of the first Dutch settlement at the Cape. It may be noticed that the list of animals is very long and detailed. It therefore presents a good starting point for the present investigation as a review of what was already known in 1652. The text was used extensively by Dapper (2.15), Ogilby (2.19), and others.

The following animals are listed in Dutch (1652:23-28, localities in brackets):

Land animals: Herten (on Table Mt. and at Mossel Bay), rhee-kalveren (on Table Mt.), wilde koebeesten, steendassen (on Elisabeth or Dassen Island and on Table Mt., reddish colour), steen-bokken (on Table Mt.), hazen (on Tabl Mt.), konynen (Elisabeth Island and Table Mt.), schildpadden (Table Mt.), rhenosserus (Table Mt. and Mossel Bay), honden (short tails, usually red and black in colour), jakhalzen (Table Mt.), yzer-varkens (Table Mt.), wolven (Table Mt.), tygers (Table Mt.), luparden (Table Mt.), leeuwen (Table Mt.), elephanten (Mossel Bay), zee-robben: also called zee-honden, zee-wolven, zee-beren (Elisabeth and Robben Islands), tonyns: also called zee-varkens, elanden (Table Mt.), zee-paerden (Mossel Bay).

Flying animals: Patrysen (Table Mt., Vlees Bay), kwakkelen (Vlees Bay), leeuwerken (Vlees Bay), mussghen (Vlees Bay), rotganzen (Table Mt.), bergeenden (with yellow bills, Table Mt.), slobben: also called halve eenden (Table Mt.), pyl-steerten (Table Mt.), smienten (Table Mt.), talingen (Table Mt.), houtsnip (Table Mt.), watersnip, kropgans (Table Mt.), sgholfers (Elisabeth Island, Table Mt.), pinguyns (Elisabeth and Robben Islands, Vlees Bay), meer-koeten (Vlees Bay), rietvogels (with red bill and legs, Table Mt.), honing-byen (Table Mt.), struys-vogels (Table Mt.), wilde paauwen (Table Mt.), witte lepelaars (Table Mt.), reygers – [in three kinds: (1) large blue ones, (2) intermediate white ones, (3) small black ones, in swamps]; kranen (Table Mt.), havikken (Vlees Bay), ravens (Table Mt.), exters (Table Mt.), flamengos, kleyne witte meeuwen, paarde-vliegen (Table Mt.).

Birds found in sea-waters: antenayas (at Cabo das Aigulhas), alcatraçes (grey bird, size of gull), faysons (little larger than swallow, white feathers with grey or black spots, body coloured, belly white), gavoityns or duykers, garagians (similar to alcatraçes), jan-van-genten (white gulls with black wing tips), kaap-vogels (large gulls, feathers white below and blue on top), kleyne meeuwen (several kinds).

Water animals: huygen, fish resembling carp, sghobbige harders, zand-kruypers, steenbrassems, harders, kreeften, oesters, mosselen (Mossel Bay), walvissghen, pots-hoofden (smaller than whale), bruyne-vissghen.

2.2 Van Riebeeck, stay 1652-1662

Jan van Riebeeck (1618-1677) arrived at the Cape of Good Hope in April 1652 to establish a halfway harbour for VOC ships travelling to the east. He had no time specifically to study the animals, but many of course were encountered, shot or traded. Van Riebeeck kept a diary, the *Dagh-Register*, last edited and translated by D.B.Bosman and H.B.Thom (1952-1957). The animals there mentioned in passing were all seen in the vicinity of the Cape, and it does not seem necessary here to extract all references in detail. Many of his records of mammals were extensively reviewed by Skead (1980). The following species were mentioned.

Mammals: cevetkatten, dassen, elanden, hasen, herten, jackhalsen, leeuw, lupert, noortcaper-walvis, reetjes, renosters, sebras, steenbocken, tyger, walvis, wolff, zeekoe, zeerop.

Birds: bergheenden, duykers, eenden, gansen, patrysen, peguyns, phaisanten, snippen, vink, vogelstruys.

Others: clipconten, haringh, herders, mosselen, santcnijpers, sprinckhanen, steenbraessem.

2.3 Blank, visit 1652

In 1652, four deserters, headed by Jan Blank, left the new settlement. They travelled northwards along the coast from 25 September until 3 October. Soon after they left, still near Table Bay, they encountered 2 'renosters', 1 'yzervarken' and 2 'struisvogels' (see Molsbergen 1916, I:11).

2.4 Heeck, visit 1655

Gijsbert Heeck went on his third journey to the East Indies in 1654 as upper-surgeon in the service of the VOC. He stayed at the Cape from 2 April – 15 April 1655 (Raven-Hart 1971: 32-43). While hunting near the Fort, on 4 April 1655, he found the fresh tracks of 'lions, tigers, wolves, jackals, deer, terribly large baboons and other such animals' (as translated by Raven-Hart 1971:34).

2.5 Gabbema, stay 1657

Abraham Gabbema was sent into the interior with a group of 16 Dutchmen and 3 Hottentots to try to find ways of bartering cows. This expedition lasted from 19 October to 3 November 1657 (Molsbergen 1916,I: 28-31). On 23-25 October 1657 they met near the Grote Bergh River (c.33°45'S, 18°58'E) some 'zeekoeien' and a 'renoster', and they caught a fish called 'barmer' which tasted well.

2.6 Van Herwaerden, stay 1658

Jan van Herwaerden went inland from the Cape 26 February –

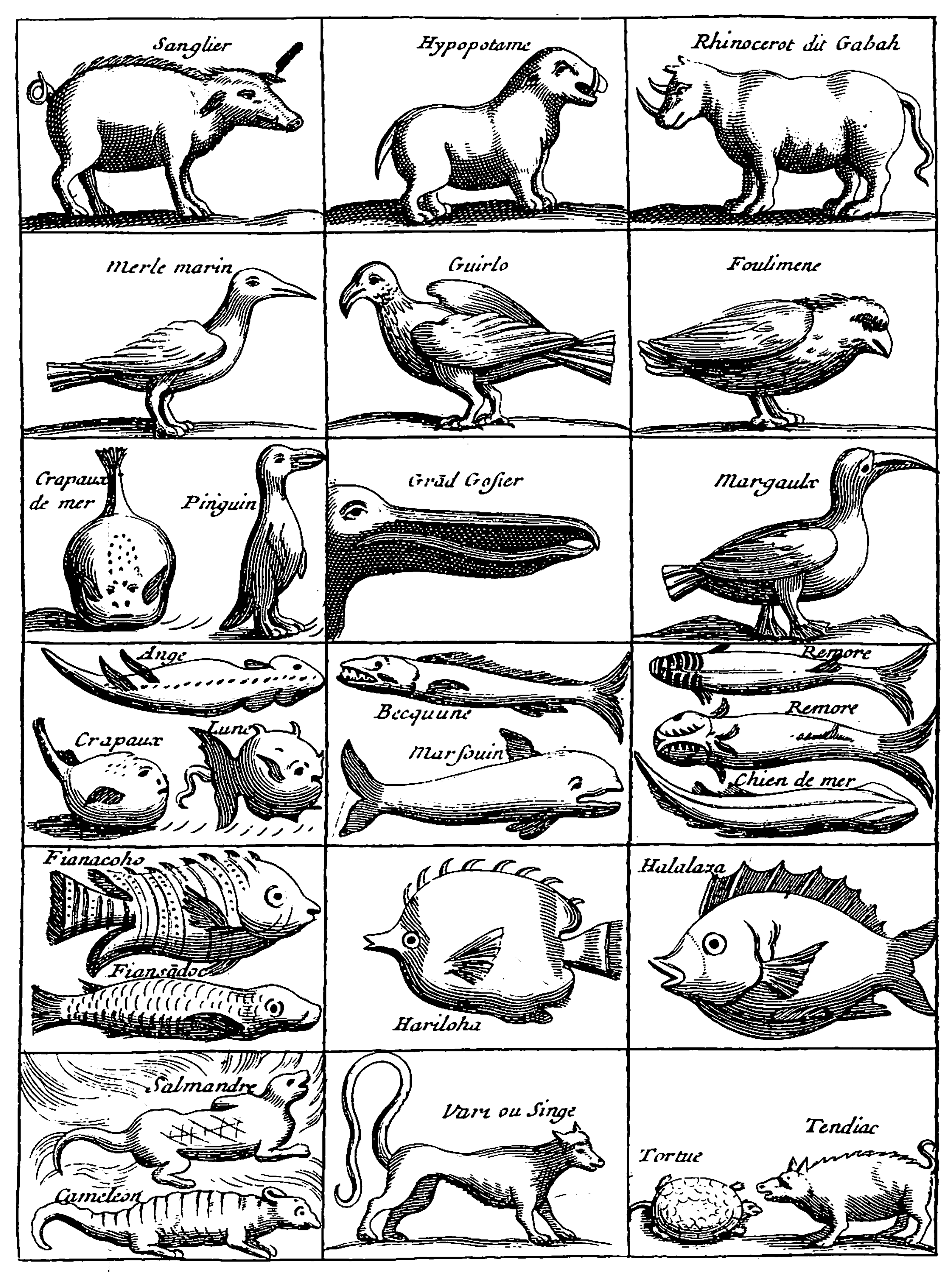


Fig. 1 A variety of animals illustrated by E. de Flacourt in 1658 (see 2.7).

20 March 1658 (Molsbergen 1916,I:32). While travelling near the Lupaertsbergh (= Tierberg, 33°52'S, 18°35'E) they met 4 lions and a 'renoster ... die twee hoorens op de neus hadde staen, gelijck de bocken haer hoorens dragen' (with 2 horns on the nose like antelopes on the head). Near the Grote Bergh River (33°45'S, 18°58'E) they saw 7 'wilde paarden'. On 19 March, a 'leeuw' jumped on Jan Remens who was badly hurt; the animal was shot through the head.

2.7 De Flacourt, 1658

The Frenchman Etienne de Flacourt (1607-1660) was sent to Madagascar to represent the French Company of the East Indies. He twice stayed at the Cape, 13-24 October 1648 and 7-26 March 1655. He published the observations made about his journey and about his stay in Madagascar in a book of 1658, with a second edition in 1661. Some background information and English translations of the section about the Cape were provided by Strangman (1936:72-85) and Raven-Hart (1971,I:29-30). While describing his second stay at the Cape, de Flacourt (1658:378) listed some animals:

Baleines, hypopotame (one seen dead on the beach of the islet à la bische), éléphant, loups, sangliers, lyons, tigres, cerfs, boeufs, petits chevreuils (eaten), rhinocerot.

The book contains a plate (in second edition facing p.58) with 18 small figures of animals including the 'Hypopotame' and the 'Rhinocerot dit Gabah' (the last was illustrated by Rookmaaker 1985a:284).

2.8 Danckaert, visit 1660

From 12 November 1660 to 20 January 1661, Jan Danckaert led a group of 12 men to the kingdom of Monomotapa (Molsbergen 1916,I:42-45). They came to a river called the Groote Oliphants River (near Citrusdal, 32°35'S, 19°1'E) where they caught many fish 'de schoonste vis van de werelt' and nearby they saw some 200 or 300 elephants. To reach that place, they had to traverse a region full of mole heaps: 'gelove dat dit quartier het coninckrijck van de mollen is, want het soo doorgraven is, dat men genootsaeckt is de renosterpaden te volgen, vallende anders overal tot over de knien door het sandt' (believe this to be the kingdom of moles, because the land has so many of their tunnels, that one has to follow the rhinoceros tracks to avoid falling through the sand).

2.9 Cruythoff, visit 1661-1662

Pieter Cruythoff led an expedition in northern direction, 30 January – 11 March 1661, accompanied by 11 people including Pieter van Meerhoff who kept the journal (Molsbergen 1916,I:45-62, Mossop 1931:6-11). The animals seen can be recorded here chronologically.

31 Jan. 1661, near Tygerberg (33°52'S, 18°35'E): saw 7 renosters and van Meerhoff shot a hartebeest.

1 Feb. 1661, near Mosselbank River (33°47'S, 18°43'E): many mosselen, 2 renosters, 3 vogelstruysen.

2 Feb 1661, near Perdeberg (33°35'S, 18°45'E): 9 muylesels, 4 vogelstruysen.

3 Feb 1661, Riebeecks Casteel (33°23'S, 18°51'E): leeuwen, renosters, paarden, vogelstruysen, hartebeesten. 4 Feb 1661, in the same place, they saw in one day: 13 paerden, 5 reynosters, vogel-struysen, thousands of hartebeesten.

5 Feb 1661, Grote Bergh River (at Sonkwasdrift, 33°16'S, 18°58'E): leeuw, hartebeesten (one shot), zeekoe, 3 wolven (crying at night).

6 Feb 1661, Kleine Bergh River (33°16'E, 19°2'E): zeekoeyen.

10 Feb 1661, near Greys Pass (32°40'S, 18°58'E): reynoster (with a small young).

2 March 1661, Olifants River (32°35'S, 18°57'E): hartebeest (one shot).

4 March 1661, Kleine Bergh River (32°15'S, 19°E): 23 schoone peerden.

8 March 1661, near Perdeberg (33°35'S, 18°55'E): 15 paerden.

Later, from 21 October 1662 to 1 February 1663, Pieter Cruythoff led another expedition, again accompanied by Pieter van Meerhoff while the journal was kept by Frederick de Smit (Molsbergen 1916,I:66-113, Mossop 1931:13).

22 October 1662, Tygersbergh (33°52'S, 18°35'E): vogelstruysen, steenbocken, haertebeesten.

23 October 1662, Mosselbank River (33°47'S, 18°47'E): reynoster, haertebeesten (one shot).

27, 28 October 1662, Grote Bergh River (33°16'S, 18°58'E): zeekoeyen, leeuw.

29 October 1662, Kleine Bergh River (33°16'S, 19°2'E): reynosters.

30 October 1662, near Saron (33°12'S, 19°1'E): haertebeesten, 5-6 wilde paerden, reynoster, leeuw.

3 November 1662, near Greys Pass (32°40'S, 18°58'E): dassen (brought by the Sonqua people to be eaten, again on following days, 4, 10, 11, 17 November).

27, 29 November 1662, Olifants River (31°30'S, *18°15'E): zeekoeien*, 2 oliphanten.

9 December 1662, same place?: ezelspaerden, elanden.

6, 7 January 1663, Olifants River (as 27 November): oliphanten, hartebeesten, elanden, 'eenen schoonen grooten bock' (a nice large bok, not described).

18 January 1663, Olifants River (32°20'S, 18°55'E): steenbocken (brought alive by the Sonquas).

21 January 1663, (place as 3 Nov 1662): 3 reynosters.

25 January 1663, east of Piketberg (c.32°50'S, 18°55'E): leeuw, haertebeesten, renosters.

26 January 1663 (place as 29 Oct 1662): haertebeesten, wilde paerden, 3 reynosters.

27 January 1663, Grote Bergh River (place as 27 Oct 1662): 2 leeuwen.

31 January 1663, Mosselbank River (place as 23 Oct 1662): hartebeest, rynoster.

2.10 Saar, 1662

Johann Jacob Saar (1626 – c.1672) born in Neuremberg, travelled in the service of the VOC to the East Indies in 1644 returning in 1660. He visited the Cape from 1 – 20 March 1660. Saar recounted some of his adventures in a small book first published in German in 1662 (reprint 1930). It was translated into Dutch in 1671, and a second German edition appeared in 1672. Raven-Hart (1965c, 1971 :62-67) translated the section about the Cape. While at the Cape, he mentioned a few animals (1662:158, 1930:179):

Löwen (2 skins were hanging in the house of the governor, one killed by an African with an arrow, the other strangled by a wild pig), Eisenschwein, Elephanten, Straussen (eggs are eaten).

2.11 Merklein, 1663

J.J.Merklein, born in Winsheim, Germany, joined the VOC in 1644 and was in the East Indies 1644-1652. On the return journey, he visited the Cape from 2 March to 17 April 1653. The account of his travels first appeared in German in 1663 as part of a larger collection of journeys edited and annotated by Christoph Arnold (1627-1685). A second edition with revised notes appeared in 1672 (reprint 1930). Raven-Hart (1964a, 1971:4-9) translated the section of the Cape. Merklein provided a short list

of animals then known in Africa, some of which probably was not based on personal observations (Merklein 1672:1094-1095, 1930:107):

Hirschen, Löwen, Straussen, Stachelschweine, Pavianen, Piguinen, Seerobben (mentioned again later, 1672:1106, 1930:109), Schildkroten, Fische (many species), Walfische (present but not caught, 1672:1106, 1930:110).

2.12 Van Hoorn, visit 1663

Pieter van Hoorn, extra-ordinary member of the VOC Council of the East Indies, visited the Cape from 26 August – 9 September 1663 on his way east. His journal was translated by Raven-Hart (1971:75-78). Near the coast, on 25 August 1663, he saw penguins and seals. On 31 August 1663, he made a short excursion to Rietvlei (33°50'S, 18°30'E) where he met all kinds of game 'such as deer, hinds, ostriches, steenbok, korhaan, and also hares: it was an amusing affair: we saw also the fresh track of a lion' (p.76).

2.13 De la Guerre, visit 1663

Jonas de la Guerre from Havre de Grâce led a group of 16 people to the country of the Namacquas, 11 October 1663 – 22 January 1664. The journal was kept by Pieter van Meerhoff (see 2.9). Molsbergen (1916,I:114-119) summarized this record of the expedition. It includes one remarkable event. On 28 November 1663, the group saw two 'camels' in a region near the Spoeg River (30°28'S, 17°22'E), about 200 km south of the Orange River. 'Camel' (in Dutch) was a name for giraffes, like it was still used by Wikar (see 5.79) more than a century later (Molsbergen 1916,II:94), and it is still found in the combination 'kameelpaard' or 'camelopardus'. It is quite certain that de la Guerre did not reach anywhere near the Orange River. Giraffes are practically unknown south of that river. De la Guerre's record is the southernmost ever given; unless a misidentification is claimed, there appears to be no way of refuting his statement and it was accepted as the southernmost occurrence of the giraffe (Bigalke 1951, Skead 1980:434, Rookmaaker 1983a).

2.14 De Beaulieu, 1664

Augustin de Beaulieu (1589-1637) travelled to the East Indies and called twice at the Cape, in 1620 and 1622. His account was not published until 1644, with a second edition of 1664. Strangman (1936:44-71) translated and introduced the part about the Cape. De Beaulieu climbed Table Mountain and saw some animals (de Beaulieu 1664:8):

Singes, marmots, lyons, loups ceruiers, renards, porc-epics, autruches, elephants, ours-marins, pinguins.

2.15 Dapper, 1668

Olfert Dapper (1636-1689) hardly ever left his hometown Amsterdam. He is mainly known for his voluminous historical and geographical compilations (cf.Schapera 1933:1-4). His first book in that series was a description of Africa which first appeared in Dutch in 1668. There was a second edition in 1676 and translations in German (1670, 1671), English (1671), and French (1686).

Mammals: herten, rheekalveren, wilde koebeesten (in herds of 60 to 100), steen-dassen, yzere verkens, steen-bokken, hazen, konynen, bonte tygers, luiperts, wolven, reinosters = neushorens, olifanten, leeuwen (1668:641), (an animal large as an elephant with two horns on the nose while the rhinoceros has only one), jakhalzen, lant- en water schildpadden, zeerobben (also called: zee-honden, zee-wolven, zee-beren), zeepaerden (1668:642);

Birds: patryzen, quakkelen, leeuwerken, musschen (several kinds), rotganzen, berg-enden (with yellow bills), slobben = halve eenden, pyl-steerten, smienten, telingen, hout- en watersnippen, scholfers, pinguyns (1668:642), flamengos, antenayas, alkatraçes, faysons, gavoityns, garagians, jan-van-genten = witte mouwen, kaep-vogels, mangas de velludo = fluwele mouwen (1668:643);

Others: Huygen (kind of fish), harders, zant-knypers, steenbraessem, kreeften, mosselen, walvisschen (1668:643), bijen (1668:642).

2.16 Herport, 1669

Albrecht Herport (1641-1730), born in Bern, Switserland, enlisted as a soldier of the VOC in 1659. He went to the East Indies and returned in 1668. He visited the Cape 5-22 October 1659 and 24 December 1667 – 24 January 1668. His account appeared in German in 1669 (reprint 1930). A Dutch translation followed in 1670. Raven-Hart (1966a, 1971:54-57, 106-107) gave an English translation of the sections about the Cape. Only a few animals were mentioned (1669:15-16, 1930:21-22):

Löwen, rhinoceroten, tiger, helffanten, wilde pferdt, stachelschwein, steinbock (as large as a horse), affen, fabianen, straussen, seekühe, nord-caper, trillfisch.

The frontispiece shows a view of Table Mountain with an ostrich and an armour-plated one-horned rhinoceros taken from the woodcut of Albrecht Dürer, 1515 (Raven-Hart 1971:54, Clarke 1986:22).

2.17 Andersen, 1669

Jürgen Andersen was a soldier in the service of the VOC. He left Holland on 24 April 1644 to go to the East Indies. He visited the Cape in that year. His notes were edited in 1669 by Adam Olearius (1599-1671), who probably inserted some of his own ideas (Honoré Naber in Merklein 1930:viii-xi). The book contains a plate of the Table Mountain with an ostrich and a canine animal. A few animals were mentioned in the Cape region (Andersen 1669:4-5):

Hasen, steinböcke, gämsen, lewen, strauß, leffelgänse, pinguinen, fünff-finger-fische (the name derived from 5 blue spots on each side of the body), stein-brassem, sartellen, barse, erdschildpadden.

2.18 Croese, stay 1669

Jeronimus Croese, employed by the VOC, led a short expedition in northeasterly direction from 4 – 25 January 1669 (Molsbergen 1916,I:122-128). Two animals were mentioned.

On 12 January 1669 they shot a 'zeekoe' near Sondereind River (34°S, 19°15'E), and on 20 January 1669 they saw a 'leeuw' at the Dolphy River (? 34°5'S, 19°10'E).

2.19 Ogilby, 1670

It is generally accepted that the books by John Ogilby describing different parts of the globe were neither original nor based on his own travels. His *Africa* is a compilation mainly based on Dapper (1668). In his description of the Cape of Good Hope, he included a long list of animals (1670,II: 588-589), largely copied from Hondius via Dapper.

Stags or harts, roe-hindes, wild cowes, badgers (red colour), wild bears, wild goats, hares, conies, ring-streak'd tygers, leopards, wolves, rhinocerots, animals like elephants with two horns on their noses such as the rhinocerots have one, elephants, lions, jack-alls, sea-rabbits, sea-dogs,

sea-wolves or sea-bears, sea-horses, porcupisses or sea-hogs, sea-cats, partridges, ducks, sparrows, geese, wild ducks, parrets (with yellow bills), more-hens, wagtails, gulls, teal, wood-snipes, water-snipes, cormorants, pinguyn, moor-cocks, marsh-fowl (with red bill and legs), white peacocks, white shovelers, herons (3 kinds), cranes, hawks (several kinds), peacocks, pheasants, partridge (mentioned again), ravens, crows, ostriches, flemengos, antenayas (or grey speckled fowl), alcatraçes (grey), pheasants (here translated from faysons), gavoityns = dyvers, garagians, jan-van-genten, whales, huygen, rough mullets, lobsters, breams, crabs, mussels.

2.20 Van Overbeke, 1671

Aernout van Overbeke (1632-1674) travelled to the East Indies in 1668. He published a short account of this journey in 1671, and the same text was included in his *Rym-wercken*, which first appeared in 1672 with many later editions (eg. van Overbeke 1685). Van Overbeke stopped at the Cape of Good Hope from 22 July – 12 August 1668 (1671:17, translated by Raven-Hart 1971:108-109). He mentioned that during his stay a 'zee-koe' was shot at a distance of about 2 days from the Fort. On his departure, the ship was followed by many 'Caep-vogeltjes' (white with black spots, probably *Daption capense*).

2.21 Schouten, 1676

Wouter Schouten (1638-1704) went to the East Indies as ship's surgeon in the service of the VOC in 1658 to return in 1665. He stayed at the Cape twice, 25 July – 1 August 1658 and 9 March – 22 April 1665. He published a long account of his time in the east in Dutch, in 1676. A German translation (with author's name given as Walter Schultzen) appeared in 1676 with the same publisher. Raven-Hart (1965d, 1971:48-52, 79-92) translated the parts about South Africa. During the first visit in 1658, Schouten climbed Lion Hill where he saw some animals (1676A:8):

Rheen, steen-bockjens, leeuw (one appeared from behind the rocks, but disappeared in the bushes).

In 1665, Schouten saw skins in the Fort, all mounted (1676B:185) including 'leeuwen, leeuwinnen, tyger, rhinocerots, slangen, wolven.'

2.22 Tavernier, 1676

Jean-Baptiste Tavernier (1605-1689) told about his stay at the Cape in his large work published in French in 1676. There was a Dutch translation in 1682. The section on the Cape was translated by Strangman (1936:86-94) and Raven-Hart (1971:67-72). He is only known to have visited the Cape in 1649, but many observations, like a visit to the Fort, can only date from after 1652 (Raven-Hart 1971:67).

He mentioned that ostriches 'austruches' were brought on board by a Hottentot woman (1676:502). In the museum in the Fort he saw the skins of a 'cheval, lyon, porc-épic' (1676:505) and he recorded the presence of 'lyons' and 'tygres' (1676:506).

2.23 Vermeulen, 1677

Gerret Vermeulen went to the East Indies in the service of the VOC in 1668 to return in 1674. He stayed at the Cape of Good Hope from 2 – 13 December 1669 and 25 April – 3 June 1674. He published a short account of his journey in Dutch in 1677. No later editions are known. Raven-Hart (1966e, 1971:111-114, 175-179) translated the section about the Cape. In the description of his visit in 1669, Vermeulen (1677:13) mentioned the presence of:

leeuwen, tygers, struysvogels (10 feet high, fast runners, laying some 40 eggs), yzervarkens (with quils of 5 inches long).

2.24 Bolling, 1678

Frederik Andersen Bolling, born in Tönsberg in Norway, studied theology in Copenhagen. He went to the East Indies as a cadet with the VOC in 1670 and returned in 1673. He was at the Cape from 21 March – 1 April 1670 and 20 April – 11 May 1673. He described his journey in a Danish book published in 1678, and a Dutch translation was prepared in 1913. Raven-Hart (1971:143-154, 171-173) translated the section about the Cape. During the first visit, Bolling went ashore and saw several animals. The frontispiece shows the Cape with an ostrich, elephant and a single-horned rhinoceros based on Dürer. Two text-figures show South African birds, i.e. an ostrich (1678:26) and a penguin (p.27). The names of the animals in Danish are as follows (1678:23-26):

løfver, leoparder, tigir, biørne (black and white in colour), refver, vilde heste, søehefte = Hippopotamus, bavianer, rhinoster = rhinoceros, elephanter, struß-fugel, pingvins. On p.27 there is stated that a 'see-koe' was caught alive; it could be seen in the slaughterhouse, stuffed with hay.

2.25 Schreyer, 1679

Johann Schreyer was born in Lobenstein, Germany. In 1668, he entered the service of the VOC as a soldier. He sailed from Holland on 29 July 1668 and arrived at the Cape of Good Hope on 3 December 1668. He remained at the Cape, maybe due to sickness, and later was promoted to under-surgeon, surgeon, and in 1672 to upper-surgeon in charge of the hospital. He probably returned to Europe in 1674 or 1675 (Honoré Naber in Schreyer 1931:ix-xiii, Raven-Hart 1971:114). There is no evidence that he ever visited the East Indies, although the title of his book suggested that: 'Neue Ost-Indianische Reisz-Beschreibung, von Anno 1669 biß 1677'. The book first appeared in German in 1679, with a second edition in 1681 (reprint 1931). The first edition is extremely rare. Raven-Hart (1964b, 1965a, 1966b, 1971:114-129) translated the section about the Cape. Schreyer included many details about the animals of the Cape region, especially in chapters 27, 28 and 29.

In the first chapters (1681:19-26, 1931:23-27) there are some remarks about animals in relation to the Hottentots; especially how they are hunted or caught (löw, panther, elephanten, rinocerotes = nasen-hörner, see-kühe, elende, hirsche, stein-böcke, hasen, wilde katze, rebhüner, phasanen, wilde gänße, endten, trappen).

Schreyer's chapter 27 deals with the birds 'all of which I have seen, observed and sometimes eaten' (Raven-hart's translation from Schreyer 1681:61). The chapter has 22 sections about different birds (1681:61-73, 1931:48-55):

Strauß (6-8 feet tall, 15 eggs, living in herds of 40-50 animals), cranninchen, kropf-ganß, taucher (different sizes, largest are called Maalgasen), moeben, allbere moeben (=malle meeuwen), blaue moeben, stahrmoebigen, bigiwinnen (Schreyer tried to take some alive to Europe, but they died on the way), gänse, berg-endten, schnee-endten, schwarze endten, geel-schnabel, schnobel, flaminck, pful- und wasser-schnäpfen (different species), strand-vogel = uberlaufer (different kinds, mainly seen in December-February), wasser-hüner, reiger (3 or 4 kinds), kornhüner, phasanen, rebhüner, wachteln, lerchen, staaren, amseln, sperling

(nest described), wilde tauben, turtel-tauben, [descriptions of birds without names, *Nectarinia famosa*, *N.chalybea*, *Euplectes capensis*, *E.orix*, and *E.progne*], habichte, raben, krahen, dreck-vogel (white; also other species described, probably *Sagittarius serpentarius* and *Neophron percnopterus*), blumen-spechte.

Chapter 28 enumerated the fishes and other sea animals, including whales and seals:

Wallfisch (often seen in August and September), pritsköpffe (30 feet long), rappen = seehunde (larger than an ox, seen in November), delphinen, krebse, taschen-krebse, austern, lachs, salm, elsen, steinbeissen, stumpffnasen, hottentots fische, herder, macrel, maßbancker.

Chapter 29 deals with the mammals living on the land:

Elephant, wasser-pferdt = seekuh, elende, gemsbock, blauw böcke, bundte böcke, rehe-böcke, klippsteiger, steinböcke, wilde böcke, hirsche, haasen, wilde schweine, stachel-schweine, bavianen, leoparten, panterthier (one taken alive to Holland, where he sold it in Middelburg after arrival), wölffe, wilde hunde, wilde katzen.

2.26 Hoffmann, 1680

Johann Christian Hoffmann (1650-c. 1682) was an unordained pastor when in 1671 he sailed with the VOC to Mauritius and the East Indies. He returned in 1676. He stayed twice at the Cape, 11 February – 30 May 1672 and 28 January – 18 March 1676. He published an account of his travels in German in 1680 (reprint 1931). Raven-Hart (1971:160-164, 180) translated the section on the Cape. Hoffmann mentioned a few animals (1680:33, 1931:31-32):

Elephanten, rhenoster (with 2 horns), löwen, tieger, elendte, hirsche, hasen, steinböcke, straussen, flamincken, wilde gänse, auerhanen, bergendten, wilde endten.

2.27 De Lacombe, visit c.1680

The account of Jean de Lacombe's travels remained in manuscript. It was edited and published by A.Gibson in 1937. De Lacombe probably visited the Cape around 1680 where he mentioned a few animals (in the English translation, de Lacombe 1937:50):

Deer, elands, wild boars, roe-deer, otters, steinbocks, sea-cow (ears 5-6 feet long, 2 tusks like wild boar, 2 great fins, seen on sea-shore in hundreds), elephants, lions (one seen on Table Mt.), bears, rhinoceros, monkeys named babians (carnivorous, devouring men like lions).

2.28 Nieuhof, 1682

Johan Nieuhof (1618-1672) was a merchant in the service of the Dutch East and West India companies. He went to Brazil in 1640-1649, to the East Indies in 1653 and China 1655-1657 (Smit 1986:193). He was at the Cape of Good Hope from 9 February to 13 March 1654. His book was published posthumously under the direction of his brother Hendrik. Raven-Hart (1971:10-27) translated the part about the Cape, but without the list of birds. Nieuhof probably compiled his list of animals from hearsay, if it was not added later by his brother. A few species are mentioned twice. I have rearranged the list a little to separate the mammals from the birds and to avoid duplication. Nieuhof (1682:8-10) gave these names:

Mammals: Zeekoeien, yzere varkens, leeuw, steen-bokken, hazen, konynen, bonte tygers, wolven, luypaerts, luipaarts (mentioned separately), rhinosters = neushorens (one animal had fallen in a swamp and was unable to get out – an incident which happened on 8 January 1655 after Nieuhof's departure; horns preserved in the Fort), rheeën, steendassen, jackhals, bavianen, walvisschen. He also mentioned a kind of dog (*Lycaon pictus*) and the rhinoceros with 2 horns (*Diceros bicornis*).

Birds: pinguwyns, flamengos, antenayas, alkatraçes, faysons, gavoityns, garagians, jan van galen, kaepvogels, patryzen, rotganzen, quakkelen, fesanten, kraien, berg-enden, pylstarten, telingen, smienten, houtsnip, watersnip, slobben = halve eenden, scholfers, wilde paeuwen, reigers (3 kinds), rietvogels, havikken, raven, exters, vogelstruisen.

Other animals: zee- en lantschildpadden, byen, hottentots visch, tongen, kraek-visch = traeg-visch.

2.29 Bergh, stay 1682-1683

Olof Bergh (1643-1723) born in Göthenborg, Sweden, joined the VOC in 1665. He arrived at the Cape of Good Hope in 1676 and stayed there until his death in 1723. He undertook two major journeys to the north following orders of governor Simon van der Stel. This resulted in a map of the country (Molsbergen 1916,I:135-136) as well as two journals published by Mossop (1931).

The first expedition lasted from 30 October to 19 December 1682. His report 'Journael van de landtocht gedaen bij d'edele vaendrigh Oelof Bergh' (ARA) mentioned the following animals according to Mossop (1931). On 1 November, near the Kleine Dassenbergh (33°30'S, 18°32'E) they shot a hartenbeest (Mossop 1931:80). On 9 November 1682, at Bergfontein (a spring at Klipfonteinberg, 32°2'S, 18°31'E) they shot another hartenbeest (Mossop 1931:98). On 9 November 1682, at Dassenbergh Fonteyn (near Heerenlogement, 31°58'S, 18°33'E) they recorded dassen (Mossop 1931:98).

The second expedition lasted from 27 August – 24 October 1683. The report is entitled 'Dagregister van de landtogt van de Caap de Goede Hoop, waren gedestineert naar de Tropikus Caprikornis en de noort, gedaan bij den faendrich Oloff Bergh' (ARA). He only recorded 'wilde bocken' near the Olifants River, which lived in very large herds. This may here refer to the springbok, *Antidorcas marsupialis*, considering the large numbers. Bergh shot one and took a young specimen with him as it could no longer walk (Mossop 1931:170)

2.30 Van Reede, visit 1685

The life of Hendrik Adriaan van Reede tot Drakenstein (1636-1691) has recently been admirably detailed by Heniger (1986) with an emphasis on his botanical interests and the production of the *Hortus Indicus Malabaricus* (1678-1693). Van Reede, a nobleman from Utrecht, entered VOC service in 1656 and made fast promotions to become commander of Malabar from 1670 to 1677. He returned to Holland in 1678, where he was appointed Commissioner-General of the Western Quarters in 1684 to fight corruption within the company. Van Reede was a botanical amateur with great official influence. He may have been interested in zoology, but he never undertook any serious studies.

Van Reede visited the Cape of Good Hope in his position of Commissioner-General from 19 April – 16 July 1685. Hulshof (1941) published his journal which has a few accidental notes about the animals living there. Heniger (1986:69-76) demonstrated the importance of this visit, e.g. in stimulating the study of plants by Simon van der Stel and others. He also highlighted the significant contribution made by Joan Huydecoper van Maarsseveen (1625-1704), director of the VOC in Holland, by allowing botanical studies and appreciating presents of natural curiosities.

Huydecoper was responsible for the promotion of Joan Bax (c. 1637-1678) to governor at the Cape in 1676. In recognition, Bax sent him gifts in Holland, including 'live canaries, jack-

daws, siskins, Cape geese, parakeets from Madagascar, skins of wild cats, and a chalice made out of a rhinoceros horn' (Heniger 1986:71). In March 1677 there followed another collection of Cape plants and live animals like monkeys from Madagascar and a young, tamed rhinoceros meant for the menagerie of Willem III (Heniger 1986:71). The rhinoceros died on the way; it had two very small horns and was put in the collection of the University of Leiden, where it was drawn by Jan Wandelaar in 1739 (Rookmaaker 1976, 1978:34).

Van Reede's journal has only a few zoological notes, following the edition by Hulshof (1941). We may assume that all refer to the surroundings of Cape Town.

23 April 1685: some Hottentots were accused of killing a Dutchman and burying his body in a hole made by porcupines 'egelswijnen' (p.31)

11 May 1685: there were official premiums for killing ferocious animals, i.e. 50 guilders for a lion 'leeuw', 9 guilders for a hyena 'wolff' and 30 guilders for a leopard 'tyger, luypaert' (p.93).

24 May 1685: van Reede saw a group of ostriches 'struysvogelen' and the print of a lion. Lions were very dangerous to people, while sheep and antelopes were attacked by 'luypaerden, wolven', and especially 'wilde honden' (p.137-139).

2 June 1685: near Rondebosje hunters shot many 'patrysen' and a 'steenbokjen' (p.157).

14 July 1685: a farmer brought to the Fort 4 young wild dogs 'wilde honden' (p.234).

2.31 Wurffbain, 1686

Johann Sigmund Wurffbain (d.1661) stayed in the East Indies from 1632 to 1646 as merchant with the VOC. His father, Leonhart Wurffbain, edited his letters and published them just before his return in September 1646. The little quarto book (vi,65 pp) contained such a number of mistakes that the son attempted to buy and destroy all copies, hence its extreme rarity (Rouffaer 1914, Honoré Naber in Merklein 1930:vii). After J.S.Wurffbain's death in 1661, his son Johann Paul Wurffbain again edited the notes made in the East Indies from the existing diaries and published this in 1686 (reprint 1931). Just four animal species were said to exist at the Cape of Good Hope (1686:235):

Kleine schildkrotten, straussen, löwen, walfische.

2.32 Tachard, 1686

In 1685, Louis XIV sent an embassy to the court of Siam. The circumstances which led to this remarkable undertaking were explained by Strangman (1936:95). The Marquis de Chaumont (2.33) was selected as ambassador, assisted by the Abbé de Choisy (2.36). Six Jesuit fathers were willing to accompany the mission in the hope to proceed to China: Guy Tachard (1651-1712), Fontenay, Gerbillon, Visdelou, Le Comte and Bouvet. The embassy left France in March 1685 and arrived in Siam in September of that year. After 3 months there, part of the mission including Tachard returned to France where they arrived in March 1686. On the way, Tachard twice stayed at the Cape of Good Hope, from 31 May - 7 June 1685, and from 13 – 26 March 1686. Tachard's account about his journey, the *Voyage de Siam*, appeared in French in 1686. A Dutch translation followed in 1687, and there was a second French edition in 1689. Strangman (1936:95-122) and Raven-Hart (1971:271-294, 305-306) translated the sections on the Cape. Tachard made a second journey to Siam in 1687-1688 and again called at the Cape. In the account of that second journey, the *Second Voyage* of 1689, no Cape animals are mentioned.

The *Voyage de Siam* (1686:89-93, 1687:41-43) mentioned a few South African animals:

Chevreuils, gazelles, faisans, perdrix, civetes, chats sauvages, lions (in mountains around the Cape), tigres, gros signes, éléphans, rhinocéros (in mountains east of the Cape), chevaux (with stripes; de Chaumont brought a skin to France), âne sauvage, pinguins.

This account is illustrated by several plates depicting animals. Some of these are usually attributed to Claudius (see 3.2.6), who is mentioned in Tachard's text (1686:74). The plates were engraved by C.Vermeulen. They illustrate: 'Zembra ou Anes sauvages du Cap' (p.90) with 2 zebras, 'rhinocéros' copied from Dürer's woodcut of 1515 (p.104), 'cerf du Cap' of a hartebeest (p.104), caméleon du Cap de Bonne-Espérance (p. 109), 'vache-marin' of a hippopotamus (p.104), 'le céraste ou serpent cornu' (p.109), 'grand lézard du Cap' (p.110) and 'petit lézard du Cap de Bonne Espérance' (p.110).

2.33 De Chaumont, 1686

Alexandre, Marquis de Chaumont was the ambassador leading the French embassy to Siam in 1685 (see 2.32). He published a short book about this journey, first in French in 1686. A second French edition appeared in 1687, and a Dutch translation in 1687 too. Strangman (1936:157-163) and Raven-Hart (1971:295-297, 299-301) translated the parts about the Cape. A few animals are mentioned by name, without descriptions or illustrations (1686:10-12):

Lions, léopards, tigres, loups, chiens sauvages, élans, éléphans, faisans, perdrix, paons, lievres, lapins, chevreuils, cerf, sanglier sauvage, loups marins, chevaux sauvages (one skin taken to France).

2.34 Ten Rhyne, 1686

Wilhelmus Ten Rhyne (c.1640-1700) compiled the knowledge available about the Cape of Good Hope which he visited in 1673. This included a review of the animals, mostly only mentioned by name, in Latin (usually in the plural). Much must have been taken from Hondius (1652), but Ten Rhyne changed the sequence. This is the only book with the names in Latin (1686:17-20). An English translation of these chapters is found in Schapera (1933:101-103):

Chapter 2 (Animals): leones, elephantes, rhinocerotes, tigrides, pantherae, lupi, alces, hippopotami, agrestes equi, bubali, apri, oresitrophi, napes, cercopitheci, histrices, echini, putorii, lynces, cervi, daxi, meles, lutrae, lepores, onagri, caprae, rupicaprae, ibices, hirci rupisultores, feles silvatici, vulpium (called 'zackhals'), tamandua guacu (maybe *Orycteropus afer*).

Chapter 3 (Birds): struthiocameli, pavones, grues, ciconiae nigrae, ardeae, anseres, onocrotali, anates, penelopes, querquedulae, glaucia, mergi, urinatrices, fulicae, boscades, penguini, perdices, phasiani, vanelli, fideculae, gallinages minores, ululae, cephi, apodes, hirundines, colibrydes, flaminken.

Chapters 4 and 5 mention some fishes and invertebrates.

2.35 Van der Stel, journey 1686

As the expedition made by governor Simon van der Stel into the interior is well documented and illustrated by drawings by Claudius, the evidence will be presented separately in Chapter 3.

2.36 De Choisy, 1687

François Timoléon de Choisy (1644-1724) accompanied de

Chaumont (2.33) and Tachard (2.32) in the embassy to Siam in 1685. He published his account in French in 1687. The parts on the Cape were translated by Strangman (1936:123-143) and Raven-Hart (1971:264-270, 301-304). A few animals are recorded at the Cape of Good Hope (1687:80):

Perdrix (3 kinds: white, red and grey), cerfs, sangliers, tigres, léopards, lions (a skin in the Fort), élephans, asnes sauvages, chiens sauvages (lacking tails and ears), élans, chevaux sauvages.

2.37 Hesse, 1687

Elias Hesse of Ottendorp, Germany, went to the East Indies in 1680 in the service of the VOC, and returned in 1683. He visited the Cape from 18 March – 7 April 1681 and 6 June – 6 July 1683. The story of his journey was first published in German in 1687, with later editions of 1688, 1690, 1734, 1735. A Dutch translation by S.de Vries appeared in 1694. The reprint of the German version by Honoré Naber in 1931 deleted the account of the Cape Hottentots and animals. Raven-Hart (1967b, 1971:226-228, 246-251) translated the sections about the Cape.

During the visit of 1681, Hesse went to the Fort where he saw some stuffed animals (1687:49):
löwen, tyger, rhinoceroten, wölffe, schlangen. For the second visit, he recorded a few other species in the country (1687:290):

Pinguins, wallfisch, civetkatze, tygerbosch-katze.

2.38 Masurier, visit 1687

We know nothing about Masurier except that he visited the Cape in June 1687. A short extract of his journal is presented by Robinson (1950) and Raven-Hart (1971:330-331). He went hunting near Cape Town, and shot some roebuck and larger gazelles, pheasants, partridges and grouse.

2.39 Schweitzer, 1688

Christopher Schweitzer, born in Württemberg (Germany) volunteered for VOC service in 1675. He went to the East Indies and spent 4 years on Ceylon (1676-1680). He visited the Cape twice, 22 April – 1 May 1676 and 1-9 May 1682. After his return in 1682, he wrote a journal about his journey first published in German in 1688 (reprint 1931). A Dutch translation by Simon de Vries appeared in 1694, an English one by S.L. in 1700 (reissued in 1929). The sections about the Cape were published by Raven-Hart (1966c, 1971:182-184, 243). The book listed some South African animals, just names without any description (1688:14, 1931:17):

Löw, tiger, elephant, rinoceros = reinoster, affen = pavianen, wilde hund, bähren, wölff, wilde esel, straussen, see-kühe, hirsch, elend, schwein, stachel-schwein, pfauen, kropff-gänß, wilde enten, feld-hüner.

The book contains an engraving (Kennedy 1976,II,S434) which shows a lion, ostrich, elephant, a fish called 'Meer Wolff' and a parrot.

2.40 De Rennefort, 1688

Urbain Souchu de Rennefort (c.1630 – c.1689) visited the Cape of Good Hope in 1666. He wrote a *Histoire des Indes Orientales* first published in 1688, with a Dutch translation in the same year. Raven-Hart (1966d, 1971:94-101) translated parts about the Cape. He mentioned a few animals (1688:218):

Lions, reinocerots, chevreuils.

In a later work, de Rennefort (1702:192) added some others:

Loups marins, souffleurs (a fish or whale larger than a dolphin), baleines.

2.41 Schryver, journey 1689

Isaaq Schryver, born in Leiden, Holland, was an ensign employed by the VOC. In 1684 he led an expedition into Namaqualand. A few years later, from 4 January to 10 April 1689 he travelled inland in an easterly direction reaching the Kariega River. He died in 1705 or 1706 (Mossop 1931:193). His journal of the 1689 expedition is preserved, 'Dagh-register, gehouden by den vaandrig Isaq Schryver op sijn landtogt na den Inquahase hottentots... ' (ARA, Cape Archives). Molsbergen (1922,III:98-123) printed the Dutch text, and Mossop (1931:193-254) gave an annotated English translation. Only a few animals were recorded in the journal.

8 January 1689, Knoflookx Coral (34°8'S, 19°E): a Hottentot was bitten by a snake 'slang' and died 6 hours later (Molsbergen 1922:99, Mossop 1931:209).

11 January 1689, near Swarte rivier (c.34°10'S, 19°20'E): 'bonte hartebokken', more than 1000 seen (Molsbergen 1922:99, Mossop 1931:209).

28 January 1689, Lange Kloof (c.33°55'S, 21°55'E): 'wilde esels', 'we saw a rare species of wild ass, one of which we shot. It was the height of an horse and striped brown and grey' (Molsbergen 1922:103, Mossop 1931:221).

9 February 1689, Kalniga River (= Kariega River, 32°40'S, 23°25'E): 'renocer': 'we found a rhinoceros cow with a calf; we caught the latter, but the mother fled.' The calf was later killed (Molsbergen 1922:108, Mossop 1931:229).

2.42 Frik, 1692

Christoff Frik (or Frick), born ca.1661 in Ulm (Germany), was a surgeon employed by the VOC from 1681. He visited a large number of places in the east including the Cape of Good Hope, 27 September – 15 October 1681 and 28 April – 25 May 1685. An account of his journey was published in German in 1692. A Dutch translation appeared in 1694, an English one in 1700 (reprinted in 1929). Raven-Hart (1971:229-235, 258-261) gave the sections about the Cape. Only a few animals were mentioned (1692:28-30):

Löw (2 skins in the Fort), stachelschwein (preserved in the Fort), elephanten, pavianen, straussen, seeraben, nord-caper, fische, schildkrotten.

2.43 Meister, 1692

Georg Meister, gardener at the court of the Duke of Saxony, enlisted with the VOC as cadet in 1677. He went to the East Indies where he assisted Andreas Cleyer and visited Japan twice. He was at the Cape from 14-30 September 1677 and 18 March – 20 April 1688. His book first appeared in German in 1692. Raven-Hart (1971:197-206, 340-352) translated the sections about the Cape. Meister included a long account of the Hottentots, but mentioned only a few animals:

Seehunden (1692:19), elephanten, rhinocerotten, elendthiere, löwen, tieger, leoparden, panter-thiere, bäre, wölffe, waldesel, puschkatzen, straussen, see-kühe, wasserpferde, hasen, wilde schweine, stachelschweine, paviane (1692:244).

2.44 Ovington, 1696

John Ovington (1653-1731) travelled to Suratt in India in 1689-1690 and stopped at the Cape from 16 May to 2 June

1690. He published an account of his travels in English in 1696, of which there was a French translation of 1725. Raven-Hart (1971:391-399) and Botha (1924:98-111) reproduced the sections about the Cape. Ovington listed several animals (1696:488):

Deer, antelopes, baboons, foxes, ostriches, herons, partridges, feasants, pelicans, geese, ducks, lions and tygers (both 'very numerous, and so bold that they range sometimes within gun-shot of the Fort').

2.45 Dampier, 1697

William Dampier included adventures from many parts of the world in his *New Voyage round the world* first published in 1697. There were several later editions in English. Dampier was at the Cape of Good Hope 12 April – 23 May 1691. He did not see any animals himself, but he heard some names (1697:533):

Wild ass (with stripes; two skins were to be sent to Holland as a rarity), ducks, dunghil fowl, ostriges ('plentifully found in the dry mountains and plains'), fish 'especially a small sort of fish not so big as a herring', seales. There is a small illustration of a pintado bird (*Phalacrocorax* sp.).

CHAPTER 3

Simon van der Stel

3.1 THE EXPEDITIONS

Simon van der Stel (1639-1712) was appointed commander at the Cape of Good Hope and arrived there on 12 October 1679 to take up his position.[1] He became Governor in 1690 and retired in 1699 to be succeeded by his son Willem Adriaan van der Stel (1664-1773). Simon van der Stel led an expedition in search of copper deposits in Namaqualand lasting from August 1685 to January 1686. At present the zoological results of that journey will be studied.

Van der Stel kept a journal of which two versions are available. The original of the more complete journal is not known, but it was printed in the fifth volume of Valentijn's *Oud en Nieuw Oostindiën* (1726) in the section on the Cape of Good Hope. This text was reproduced by Molsbergen (1916,I:139-211) with a few notes and a reproduction of the accompanying map; and again in volume 1 of a new edition of Valentijn's work published by the Van Riebeeck Society in 1971, with an English translation and annotations. I here refer to Valentijn's text as given by Molsbergen (1916) and the VRS volume (Valentijn 1971) abbreviated to GM and V followed by the page number.

The second known version of the journal is a manuscript preserved in the library of Trinity College, Dublin. It is somewhat shorter than the text in Valentijn and appears to represent the official record presented to the Dutch authorities. This copy probably once was in the Colonial Archives in The Hague, as it is mentioned in its register, with the remark that it disappeared in 1691 or 1692. Trinity College MS 984 was acquired by purchase in London in 1802 from Hendrik Fagel (1765-1838), griffier of the Staten-Generaal until 1795 (Waterhouse 1931a, 1932:vii). This document was discussed and the text transcribed by Waterhouse (1932) and again in 1979 with the plates in colour (1932 quoted as W).

It is certain that other copies of the journal were made (Waterhouse 1932:xv). One of those is now in the Bodleian Library, Oxford prepared by Paul Hermann (Heniger 1969:533).

The journey by Simon van der Stel has already often been discussed. It is only necessary here to highlight the animals recorded in the journal. The expedition left the Fort in Cape Town on 25 August 1685 and reached the Copper Mountains near the present Springbok in Namaqualand. The party returned home on 26 January 1686. It is remarkable that the Dutch names of the animals differ between the manuscript reproduced by Waterhouse (1932) and the text in Valentijn (1726). Maybe Valentijn edited his source in this respect to conform with the usage of his days. Both methods of writing are presented below. The localities of the places mentioned are based on the annotations and the map provided by the editors of the VRS volume. In some cases the positions are not known exactly and I have indicated their general location which is sufficient for the present zoological purpose. The following animals were recorded on the journey:

1. Berg rivier (33°2'S, 18°49'E), 4 September 1685

Taurotragus oryx, 'eland' (V 240, GM 148), 'elandt' (W 12, 117): one was shot by a group of Sonqua Hottentots with a poisoned arrow.

Felis serval, 'boschkatten' (V 240, GM 149), 'tygerboschkatten' (W 12, 117): 3 skins were given to van der Stel.

2. Piketberg: Rhinocers Kraal (32°56'S, 18°45'E), 5 September 1685

Diceros bicornis, 'rhinocer' (V 242, GM 149), 'rhenoster' (W 13, 118): the animal attacked van der Stel's coach, and the gun misfired, 'we expected nothing else but that the furious beast would devour H.E. before our eyes, but it ran past him, brushing against his body.' The camp near this event was called 'Kraal agter de Rhinocersberg' or 'Rhenosterkraal' (V 244, W 14).

3. Elands Kraal (not identified, ca. 32°45'S, 18°47'E), 7 September 1685

Taurotragus oryx, 'eland' (V 244, GM 151), 'elant' (W 14, 118): one was shot, estimated weight 1000 pounds.

4. Olifants-Valey (32°30'S, 18°43'E), 11 September 1685

Loxodonta africana, 'olifant' (V 250, GM 153), 'eliphant' (W 18, 120): 2 were seen.

5. Uilenberg (32°4'S, 18°30'E), 14 September 1685

(owls), 'uilen' (V 252, GM 155), 'uylen' (W 19, 120).

6. Dassenberg (= Heerenlogementsberg, 31°58'S, 18°33'E), 14 September 1685

Procavia capensis, 'dassen' (V 254, GM 155, W 20, 121): abundant.

Oreotragus oreotragus, 'klipspringer' (l.c.) resembling the Dutch roebuck but much smaller.

Lepus sp., 'haas' (V 254, GM 155), 'haes' (W 20, 121), 'with a snout like a fox, but tasty and white-fleshed'.

7. Olifants River (31°52'S, 18°37'E), 16, 18 September 1685

Barbus capensis, fish like a 'karper' (V 256, GM 156) or like a 'berm' (barbel, W 22, 122).

Lepus saxatilis, 'haas' (V 258, GM 157), 'haes' (W 23, 122) 'much resembling those of Europe except for the ears, which were as large as those of an ordinary ass.'

8. Baviaansberg (31°47'S, 18°40'E), 19 September 1685

Papio ursinus, 'baviaanen' (V 260, GM 158), 'baviaenen' (W 23, 123).

Coturnix coturnix, 'quartels' (l.c.).

Scorpiones: 'scorpioen' (V 260, GM 158), 'schorpioen' (W 23, 123): 'as large as a rhine-crayfish in Europe, green in colour, its pincers grown with long hairs, looking very poisonous and fierce'.

9. Goede Hoop (31°27'S, 18°35'E), 25 September 1685

Equus zebra, 'wilde paarden' (V 266, GM 162), 'paerden' (W 28, 125) which look ashy grey in the distance.

10. Doornbosch-rivier (30°50'S, 18°4'E), 29 September 1685

Not identified, 'blinden' (V 272, GM 164, W 31, 126): a kind of fly, yellow and black in colour.

1. Some details about the life of Simon van der Stel can be found e.g. in Molsbergen (1916,I:139), Gunn & Codd (1981:32, 356), NNBW 9:1072. Picard (1973) tells about his life in a novel. The expedition was discussed by Waterhouse (1924, 1931b, 1932). The proposition to undertake the journey was reproduced by Hulshof (1941:90-92, 219). A partial translation of the expedition journal was published by W.L.Von Bouchenroeder in the *South African Quarterly Journal*, I:39-48, 189-200 (1830).

11. Brakke valey (= Jakhals River, 32°7'S, 18°30'E), 8 January 1686
Loxodonta africana, 'olifanten' (V 356, GM 203), 'eliphanten' (W 87, 153): six animals.

12. Zeekoejen-valey (= Verlorevlei, c.32°20'S, 18°20'E), 12 January 1686
Hippopotamus amphibius, 'zeekoejen' (V 358, GM 205, W 89, 155).

13. Olifantsjagt (c.32°20'S, 18°35'E), 15 January 1686
Loxodonta africana, 'olifant' (V 360, GM 208), some seen.

3.2 THE ASSOCIATED DRAWINGS

The draughtsman who accompanied van der Stel is nowhere mentioned in the contemporary records. However, Tachard (1686:77) met a young doctor from Breslau at the Cape whom he called Claudius: 'qu'il dessine & peint en perfection les Animaux & les Plantes, les Hollandois l'ont arresté là pour les aider à faire leurs nouvelles découvertes des Terres, & pour y travailler à l'Histoire Naturelle d'Afrique. Il a déjà achevé deux gros volumes in folio de diverses plantes.' Claudius gave some of his drawings to Tachard, who published them in his *Voyage de Siam* (1686). This later led to the dismissal of Claudius from the Cape.

Hendrik Claudius (born in 1655) of Breslau was an apothecary employed by the VOC (Waterhouse 1932:xx, Gunn & Codd 1981:117). Around 1680 he was in Batavia where he assisted Andreas Cleyer in his work on medicinal plants. In 1681 Cleyer sent Claudius to the Cape of Good Hope to study and draw the plants there. This relationship was cancelled in 1682, but Simon van der Stel kept Claudius at the Cape, maybe as draughtsman, and as such he must have taken part both in Olof Bergh's expedition of 1683 and that of van der Stel in 1685-1686.

There are several collections of drawings attributed to Claudius.[2] Their connection with van der Stel's expedition is clear from the annotations on the drawings which sometimes include dates. They already have all been described in some detail and it is only necessary to summarize the history and zoological contents of the various collections. Besides those mentioned below, there are at least three further sets with purely botanical drawings, one in Berlin (Waterhouse 1932:xxiv) and two in London (Edwards 1968, Gunn & Codd 1981:37). A few 'Claudius' zoological plates appeared in the books by Tachard (1686) and Petiver (1702-1709) noted below.

3.2.1 *Trinity College, Dublin (TC)*

Waterhouse (1932, 1979) discussed and reproduced this collection. The second part of the volume containing the journal has 71 pages of drawings with annotations in Dutch on the alternate folios. Folio 745, evidently a drawing of a lizard, is missing. Animals are shown on 25 folios with a total of 35 drawings. Waterhouse (1932:162-165) translated the text which accompanied the drawings and he (p.172-173) identified the species depicted. All drawings have descriptive text and many of them are dated, which enables us to reconstruct where they were drawn. Only two species were mentioned on the same dates in the journal (fols. 739 above and 779). The notes are on the folios with even numbers which follow the uneven number of the drawing. The animals are here listed, with the folio number preceded by 'TC' (= Trinity College) and followed by the current name of the species and other notes where relevant.

TC 733 *Suricata suricatta*. Hottentot name 'chara'. The attitude of the animal, the blackish eye and tail make this identification more probable than *Cynictis penicillata*, as stated by Waterhouse. It was found on 15 November 1685 (c.30°25'S, 17°55'E).
TC 735 (above) *Lepus capensis*, 'wild rabbit called Nabosse', found on 20 October 1685 at 'Schoone Fonteyn' (29°40'S, 17°40'E).
TC 735 (below) *Gonimbrasia tyrrhea*, 'caterpillar called Aroube' found 25 December 1685 at Groen River (30°45'S, 17°45'E).
TC 737 *Macroscelides proboscideus*, found 25 September 1685 at Goede Hoop (31°27'S, 18°35'E). The identification of this species is based on the distribution.
TC 739 (above) *Pronolagus rupestris*, hare with red tail and feet and long ears, called 'Ounwa' by namaquas, 'gaba' by grigriquas, found 14 September 1685 at Dassenberg (31°58'S, 18°33'E).
TC 739 (below) *Lepus capensis*, hare with black tail, called 'ounwa'. Found 13 September 1685 at Brakke valey (32°10'S, 18°32'E).
TC 741 *Chamaeleo namaquensis*, chameleon called 'narrou', found 15 December 1685 at Spoeg River (30°30'S, 17°35'E).
TC 743 *Cordylus cataphractus*, lizard called 'thocou' found on 26 September 1685 at Modderkuil (32°25'S, 18°35'E).
TC 745 The drawing is missing. The note refers to a lizard called 'hagou' found on 5 November 1685 at Koperberg (29°42'S, 17°57'E).
TC 747 *Serinus canicollis*, bird called 'thoucocos' by the namaquas, found 24 October 1685 at Koperberg (see TC 745).
TC 749 *Oenanthe pileata*, bird called 'chatehehamabé' by namaquas, found 30 September 1685 at Groot Doornbosch River (= Groen River, 30°40'S, 18°E).
TC 751 *Barbus capensis*, fish of 3-4 feet length, found 18 September 1685 in the Olifants River (31°52'S, 18°37'E).
TC 753 *Threskiornis aethiopicus*, found 18 December 1685 at Bitter River (30°35'S, 17°40'E).
TC 755 *Merops apiaster*, bird called 'tschoyra' by namaquas, found 3 November 1685 at Sand River (= Buffels River, 29°59'S, 17°53'E).
TC 757 *Pterocles namaqua*, bird called 'tgous' by namaquas, found 24 October 1685 at Koperberg (see TC 745).
TC 759 (above) *Oena capensis*, turtle dove called 'chaboy' found (? 25 December 1685) at Doornbosch River (30°45'S, 17°45'E). Another sketch of a dove is on the back, see also TC 761.
TC 759 (below) *Columba guinea*, spotted dove called 'queip', found 3 November 1685 at Sand River (see TC 755).
TC 761 *Oena capensis*, same bird as TC 759 above.
TC 763 *Onychognathus morio*, starling called 'gambri', found 2 October 1685 at Groot Doornbosch River (see TC 749).
TC 765 *Colius striatus*, found 4 September 1685 at Misverstandsdoordrift (33°2'S, 18°49'E).
TC 767 *Colius colius*, found on 18 January 1685 at Verloorenvlei River (31°32'S, 18°40'E).
TC 769 (above) *Naja nivea*.
TC 769 (below) *Causus rhombeatus*, both found 9 September 1685 at Martin's Kloof (32°30'S, 18°44'E).
TC 771 *Bitis cornuta*, horned adder called 'choreep', found 6 November 1685 at Sand River (see TC 755).
TC 773 *Pseudaspis cana*, snake of 8 feet length called 'cabcou' or 'keykaras' by sonquas, found 6 October 1685 at Keert Weder (30°30'S, 18°E).
TC 775 (above) snake of 1½ foot called 'thoumquete' by namaquas,

2. The study of the Claudius watercolours is complicated by the difficulty to compare the various sets directly. It has not been possible for me to study the collections in person and I had to rely on photographic material: the TC collection as published by Waterhouse (1932), the AM and IPA collections as published by Kennedy (1967). A set of photographs of the zoological drawings in the SAPL collection was kindly provided by the South African Library, Cape Town. The details about the SAM collection could be taken from Barnard (1947).

venomous. Found 6 September 1685 at Piketberg (32°40'S, 18°45'E).

TC 775 (below) ? *Acontias* sp., small animal called 'nounquats' by namaquas and 'choem' by griquas, found 2 October 1685 at Groot Doornbosch River (see TC 749).

TC 777 *Naja nivea*, common snake called 'hamachou' by hottentots. Found 8 November 1685, unnamed place (ca? 30°5'S, 17°40'E).

TC 779 (above) scorpion, found 19 September 1685 at Baviaansberg (31°47'S, 18°40'E).

TC 779 (below) another scorpion called 'ou' in namaqua, 'eynte' in griqua, found 2 October 1685 at Groot Doornbosch River (see TC 749).

TC 781 (a) *Scolopendra* sp., millipede called 'coeruquekekam' by namaquas, 'thoucomqueri' by griquas, found 18 September 1685 at Olifants River (see TC 751).

TC 781 (b) *Scolopendra* sp., millipede with the same names as the former, found 6 October 1685 at Keert Weder (see TC 773).

TC 781 (c) *Argiope nigrovittata*, spider called 'houeb' by namaquas, found 12 November 1685 (c. 30°25'S, 17°55'E).

TC 783 (above) *Hetrodes* sp., grasshopper called 'garam' found on 12 September 1685 at Olifantsjagt-valey (32°20'S, 18°40'E).

Tc 783 (below) ?*Galeodes* sp., spider called 'gnarebi', very fast and poisonous, found 25 October 1685 at Koperberg (see TC 757).

3.2.2 *Icones Plantarum et Animalium (IPA)*

This is the largest set of Claudius watercolours, preserved in the Africana Museum, Johannesburg. Its early history is not known, but it was auctioned from the library of W.Vrolik and recorded in the possession of L.V. Ledeboer (1878:334) without the attribution to Claudius. In 1953 it was purchased in The Hague by the Johannesburg Public Library and kept in the Africana Museum. MacNae & Davidson (1969) described this collection and identified all the plants, but not the animals. Kennedy (1967,II:50-135) illustrated all the drawings in monochrome with short notes on size, captions etc. There are 433 folios divided in three sections: *folios 1-283* illustrating plants, including about 78 which are similar to engravings in J.Burman's *Rariorum Africanarum Plantarum*, 1738-1739 (Gunn & Codd 1981:41); *folios 284-367* with figures (sometimes two on a page) of 3 landscapes, 1 Hottentot, 61 plants and 43 animals; *folios 368-443* showing 1 landscape and 80 animals. The identity of the animals can be given here in brief. The captions on the drawings usually are very short, often in Latin, in the handwriting of an unknown person, but similar to that in the AM collection (Kennedy 1967,II:50). The identification of the fishes follows M.M.Smith (1969).

IPA 349 (a) *Merops apiaster*
(b) *Oena capensis*

IPA 350 (a) *Colius colius*
(b) *Colius striatus*, said to the female of (a)

IPA 351 (a) *Pterocles namaqua*
(b) *Lybius leucomelas*

IPA 352 (a) *Oena capensis*
(b) *Oena capensis*

IPA 353 (a) *Columba guinea*
(b) *Columba guinea*

IPA 354 *Treskiornis aethiopicus*

IPA 355 (a) *Onychognathus morio*
(b) *Oenanthe pileata*

IPA 356 (a) ? *Julodes* sp., a beetle
(b) ? *Anthia* sp., a beetle
(c) Nemoptera
(d) *Bacillus* sp., a grasshopper

IPA 357 (a) Scorpiones, a scorpion

Table 1. Concordance of similar drawings in the various collections of Claudius watercolours, arranged according to the order in IPA.

IPA	TC	AM	SAPL	SAM
IPA 349(a)	TC 755		SAPL-Z10	
IPA 350(a)	TC 767			
IPA 350(b)	TC 765			
IPA 351(a)	TC 757		SAPL-Z9	
IPA 351(b)	TC 747		SAPL-Z7	
IPA 352(a)	TC 761		SAPL-Z14	SAM 128
IPA 352(b) 353(a)	TC 759(a)	AM 11,25D	SAPL-Z13(a)	SAM 130
IPA 353(b)	TC 759(b)			
IPA 354	TC 753		SAPL-Z8	
IPA 355(b)	TC 749		SAPL-Z11	
IPA 356				SAM 132
IPA 357(a)	TC 779(a)			SAM 140(a)
IPA 357(b)	TC 779(b)			SAM 140(b)
IPA 358(a)	TC 783(a)			SAM 136(a)
IPA 358(b)	TC 783(b)			SAM 136(b)
IPA 359(a)	TC 781(a)			SAM 138(a)
IPA 359(b)	TC 781(c)			SAM 138(c)
IPA 359(c)	TC 781(b)			SAM 138(b)
IPA 360(a)	TC 735(a)	AM 1(a)	SAPL-Z2(a)	SAM 142(a)
IPA 360(b)	TC 735(b)	AM 1(b)	SAPL-Z2(b)	SAM 142(b)
IPA 361(a)	TC 737	AM 3	SAPL-Z3	
IPA 361(b)	TC 733			
IPA 362(a)	TC 739(a)	AM 2(a)		
IPA 362(b)	TC 739(b)	AM 2(b)		
IPA 363(a)	TC 751	AM 23(b),25I(a)	SAPL-Z1	SAM 160
IPA 363(b)	TC 771	AM 23(a),25H		SAM 158
IPA 364(a)	TC 741	AM 24(a),25F	SAPL-Z4	
IPA 364(b)		AM 24(b),25G(a)		SAM 152(a)
IPA 364(c)		AM 24(c),25G(b)		SAM 152(b)
IPA 365(a)	TC 743			SAM 144
IPA 365(b)	TC 775(a)			SAM 146(a)
IPA 365(c)	TC 775(b)			SAM 146(b)
IPA 366(a)	TC 769(a)			SAM 150(a)
IPA 366(b)	TC 769(b)			SAM 150(b)
IPA 366(c)	TC 773			SAM 148
IPA 367(a)	TC 777	AM 22(a)		SAM 156
IPA 367(b)	TC 745	AM 22(b)	SAPL-Z5	SAM 154
IPA 369		AM 14		
IPA 372		AM 18		
IPA 373		AM 19		
IPA 374		AM 17		
IPA 389		AM 9		
IPA 391	TC 763	AM 15	SAPL-Z12	
IPA 394		AM 20		
IPA 395		AM 21,25(b)		
IPA 401		AM 12		
IPA 402		AM 16,25A/C		
IPA 419		AM 5		
IPA 420		AM 8		
IPA 422		AM 6		
IPA 423		AM 7		
IPA 429		AM 25J		

(b) Scorpiones, a scorpion

IPA 358 (a) *Hetrodes* sp.
(b) ? *Galeodes* sp., a spider

IPA 359 (a) *Scolopendra* sp., a millipede
(b) *Argiope nigrovittata*, a spider
(c) *Scolopendra* sp., a millipede

IPA 360 (a) *Lepus capensis*
(b) caterpillar of *Gonimbrasia tyrrhea*

IPA 361 (a) *Macroscelides proboscideus*
(b) *Suricata suricatta*
IPA 362 (a) *Pronolagus rupestris*
(b) *Lepus capensis*
IPA 363 (a) *Barbus capensis*
(b) *Bitis cornuta*
IPA 364 (a) *Chamaeleo namaquensis*
(b) *Eremias* sp., a lizard
(c) *Eremias* sp., a lizard
IPA 365 (a) *Cordylus cataphractus*, a lizard
(b) Unidentified snake
(c) *Acontias* sp., a snake
IPA 366 (a) *Naja nivea*
(b) *Causus rhombeatus*
(c) *Pseudaspis cana*
IPA 367 (a) *Naja nivea*
(b) *Agama* sp., a lizard
IPA 368 *Caloenas nicobarica* – not known from South Africa
IPA 369 *Haematopus ostralegus*
IPA 370 *Nycticorax nycticorax*
IPA 371 *Phalacrocorax capensis*
IPA 372 *Phalacrocorax carbo*
IPA 373 *Corvus albicollis*
IPA 374 *Podiceps cristatus*
IPA 375 *Streptopelia capicola*
IPA 376 (a) unidentified bird
(b) unidentified bird
IPA 377 (a) *Nectarinia amethystina*
(b) *Nectarinia amethystina*, female
IPA 378 (a) *Serinus* sp.
(b) *Serinus* sp.
IPA 379 (a) *Estrilda astrild*
(b) *Estrilda astrild*
IPA 380 (a) *Saxicola torquata*, male
(b) *Saxicola torquata*, female
IPA 381 (a) *Serinus tottus*
(b) *Serinus tottus*
IPA 382 (a) *Erythropygia coryphaeus*
(b) unidentified bird
IPA 383 (a) *Laniarius ferrugineus*
(b) *Laniarius ferrugineus*
IPA 384 *Hystrix africaeaustralis*
IPA 385 *Cynictis penicillata*
IPA 386 *Procavia capensis*
IPA 387 *Eupodotis afra*
IPA 388 *Ardeotis kori*
IPA 389 *Spreo bicolor*
IPA 390 (a) *Macronyx capensis*, male
(b) *Macronyx capensis*, female
IPA 391 *Onychognathus morio*
IPA 392 *Falco* sp., a falcon
IPA 393 *Falco* sp., a falcon
IPA 394 *Eupodotis afra*
IPA 395 *Recurvirostra avosetta*
IPA 396 *Ceryle maxima*
IPA 397 *Colius striatus*
IPA 398 *Oena capensis*, male
IPA 399 unidentified pigeon
IPA 400 unidentified bird
IPA 401 *Columba guinea*
IPA 402 *Telophorus zeylonus*
IPA 403 *Nectarinia amethystina*
IPA 404 *Chrysoblephus laticeps*
IPA 405 *Boopsoidea inornata*
IPA 406 squid
IPA 407 octopus
IPA 408 (b) egg of a fish – (a) is a plant
IPA 409 (a) (b) *Narke capensis*
IPA 410 *Callorhynchus capensis*
IPA 411 *Mola mola*
IPA 412 *Trigla capensis*
IPA 413 *Seriola pappei*
IPA 414 *Regalecus glesne*
IPA 415 (a) lizard
(b) lizard
IPA 416 snake
IPA 417 snake
IPA 418 *Diceros bicornis*
IPA 419 *Equus zebra*
IPA 420 *Crocuta crocuta*
IPA 421 an antelope called 'hertebeest'
IPA 422 *Oryx gazella*
IPA 423 *Antidorcas marsupialis*
IPA 424 lizard
IPA 425 (a landscape)
IPA 426 *Potamochoerus porcus*
IPA 427 *Georychus capensis*
IPA 428 (a) (b) (c) crabs
IPA 429 egg cases of *Callorhynchus capensis*
IPA 430 *Congiopodus torvus*
IPA 431 *Brama raii*
IPA 432 *Mola mola*
IPA 433 *Balaena glacialis*

3.2.3 *Africana Museum (AM)*

Waterhouse (1932:xv) described this small collection of coloured drawings from the possession of G.E.Britten. In 1935, it was presented to the Africana Museum, Johannesburg. It was described and illustrated in colour by Anna Smith (1952) and again in monochrome in Kennedy (1967,II:44-50, C273-C306). The attribution to Claudius is based on similarity with other sets. There are a total of 40 drawings on 34 folios, all with zoological sujects. The numbering follows that of Smith (1952).

AM 1 (2215) (a) *Lepus capensis*, 'wilde conynen'
(b) caterpillar of *Gonimbrasia tyrrhea*
AM 2 (2216) (a) *Pronolagus rupestris*, 'hasen met rode pluym'
(b) *Lepus capensis*, 'haas met swarte pluym'
AM 3 (2212) *Macroscelides proboscideus*, 'veldmuys'
AM 4 (2211) *Hippopotamus amphibius*, 'zeekoe'
AM 5 (2217) *Equus zebra*, 'caapse esel'
AM 6 (2214) *Oryx gazella*, 'gemsbok'
AM 7 (2215) *Antidorcas marsupialis*, 'bonte b[ok]'
AM 8 (2218) *Crocuta crocuta*
AM 9 (2216) *Spreo bicolor*
AM 10 (2299) *Ceryle maxima*
AM 11 (2202) *Oena capensis*
AM 12 (2203) *Columba guinea*, 'bosduyf'
AM 13 (2194) *Caprimulgus europaeus*, 'geytenmelker'
AM 14 (2208) *Haematopus ostralegus*, 'zeeduyven'
AM 15 (2210) *Onychognathus morio*, 'bergspreeuw'
AM 16 (2207) *Telophorus zeylonus*, 'canary-byter'
AM 17 (2197) *Podiceps cristatus*
AM 18 (2198) *Phalacrocorax carbo*, 'duyker'
AM 19 (2201) *Corvus albicollis*, 'afrikanse kray'
AM 20 (2209) *Eupodotis afra*, korhaen
AM 21 (2104) *Recurvirostra avosetta*
AM 22 (2221) (a) *Naja nivea*, 'caapsche kobra kapella'
(b) *Agama* sp., 'hagedis'
AM 23 (2222) (a) *Bitis cornuta*, 'een adder met hoorns'
(b) *Barbus capensis*
AM 24 (2220) (a) *Chamaeleo namaquensis*, 'cameleon'
(b) (c) *Eremias* sp., 'hagedis'
AM 25A (2200) *Telophorus zeylonus*, 'aloced'
AM 25B (2205) *Recurvirostra avosetta*
AM 25C (2195) *Telophorus zeylonus*
AM 25D (2196) *Oena capensis*

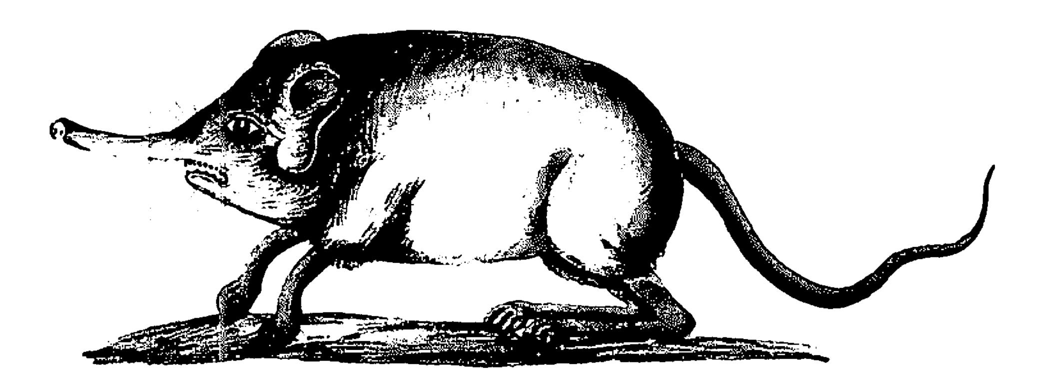


Fig. 2 Elephant shrew *(Macroscelides proboscideus)* attributed to Hendrik Claudius (SAPL-Z3).

AM 25E animal unknown in South Africa
AM 25F (2227) *Chamaeleo namaquensis*, 'chameleons'
AM 25G (2226) (a) (b) *Eremias* sp., 'hagedis'
AM 25H (2225) *Bitis cornuta*, 'gehoornde adder'
AM 25I (2223) (a) *Anguilla mossambica*
(b) *Barbus capensis*
AM 25J (2224) egg cases of *Callorhynchus capensis*.

3.2.4 *South African Public Library (SAPL)*

The history of this set is unknown except that it was presented to the South African Public Library, Cape Town between 1840 and 1850 by Mr J.C.Juta (Leibbrandt 1887:21 note, Waterhouse 1932:xxiii). There are 55 folios, of which folios Z1 – Z14 have a total of 16 zoological drawings. There are no contemporary annotations.

SAPL–Z1 *Barbus capensis*
SAPL–Z2 (a) *Lepus capensis*
(b) caterpillar of *Gonimbrasia tyrrhea*
SAPL–Z3 *Macroscelides proboscideus*
SAPL–Z4 *Chamaeleo namaquensis*
SAPL–Z5 *Agama* sp.
SAPL–Z6 *Colius striatus*
SAPL–Z7 *Lybius leucomelas*
SAPL–Z8 *Threskiornis aethiopicus*
SAPL–Z9 *Pterocles namaqua*
SAPL–Z10 *Merops apiaster*
SAPL–Z11 *Oenanthe pileata*
SAPL–Z12 *Onychognathus morio*
SAPL–Z13 (a) *Oena capensis*
(b) *Turtur chalcospilos*?
SAPL–Z14 *Oena capensis*.



Fig. 3 Cape canary *(Lybius leucomelas)* attributed to Hendrik Claudius (SAPL-Z7).

3.2.5 *South African Museum (SAM)*

The history of this volume, including its possible connection with Nicolaas Witsen, Caspar Commelin and Johannes Burman, has been traced by Barnard (1947), Waterhouse (1932:xxi-xxiii) and Gunn & Codd (1981:38-41). The drawings are clearly similar to others attributed to Claudius. A note inside the volume tells that Witsen commissioned them at the Cape of Good Hope in 1691. There are 78 folios with 88 drawings: 59 plants, 27 animals and 2 landscapes. They were described by Barnard (1947). Many have notes in Dutch attached to them like the TC collection, all quoted by Barnard. The following zoological drawings are present.

SAM 128 *Oena capensis*
SAM 130 *Oena capensis*
SAM 132 (a) *Julodes* sp.
(b) *Anthia* sp.
SAM 134 Two unidentified insects
SAM 136 (a) *Hetrodes* sp.
(b) *Galeodes* sp.
SAM 138 (a,b) *Scolopendra* sp.
(c) *Argiope nigrovittata*
SAM 140 (a) scorpion, not identified
(b) scorpion, not identified
SAM 142 (a) *Lepus capensis*
(b) caterpillar of *Gonimbrasia tyrrhea*
SAM 144 *Cordylus cataphractus*
SAM 146 (a) Unidentified snake
(b) *Acontias* sp.
SAM 148 *Pseudaspis cana*
SAM 150 (a) *Naja nivea*
(b) *Causus rhombeatus*
SAM 152 (a,b) *Eremias* sp.
SAM 154 *Agama* sp.
SAM 156 *Naja nivea*
SAM 158 *Bitis cornuta*
SAM 160 *Barbus capensis*.

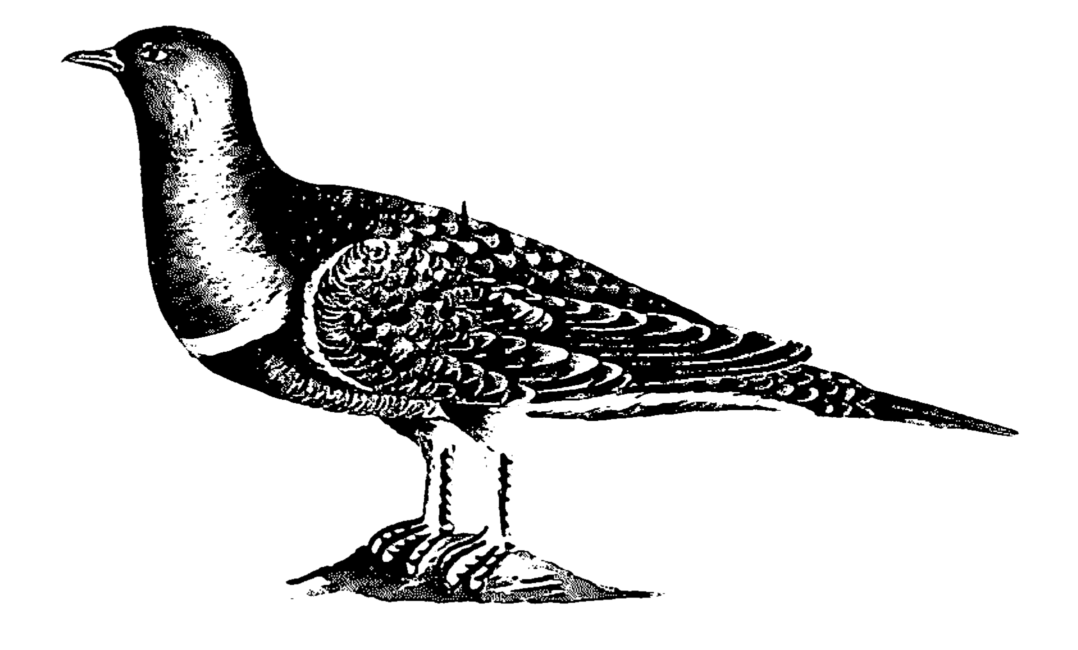


Fig. 4 Namaqua sandgrouse *(Pterocles namaqua)* attributed to Hendrik Claudius (SAPL-Z9).

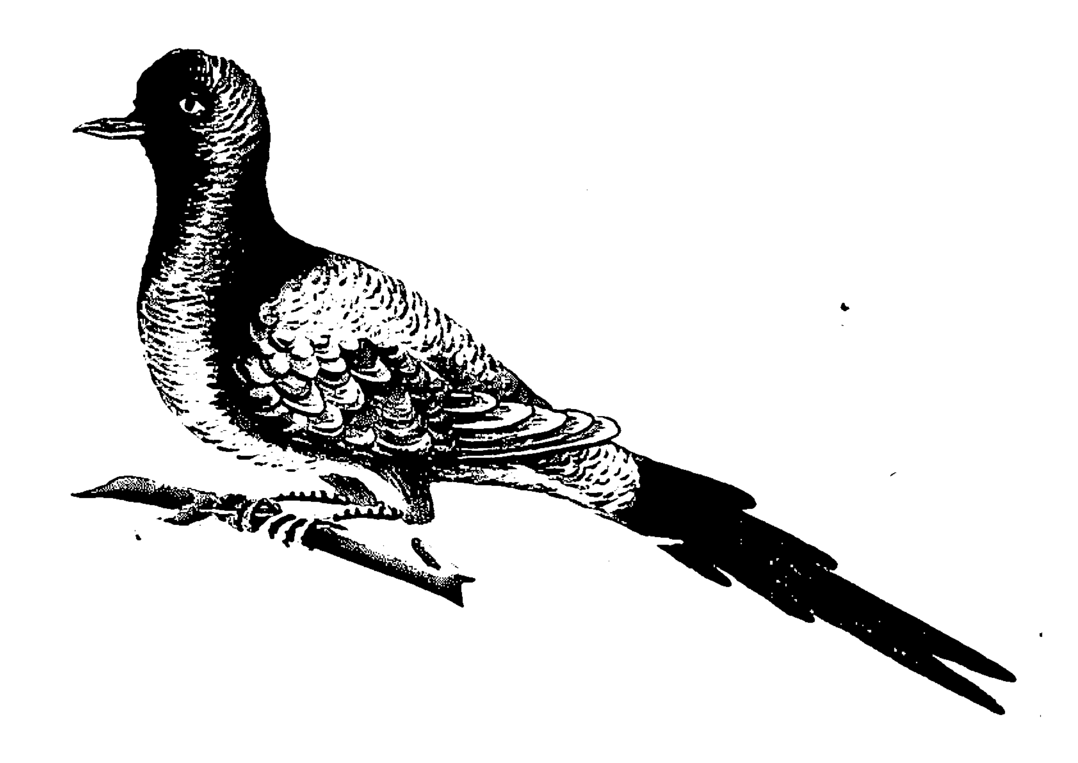


Fig. 5 Namaqua dove *(Oena capensis)* attributed to Hendrik Claudius (SAPL-Z14).

3.2.6 *Tachard's Voyage de Siam*

Guy Tachard's book published in 1686 contained a few plates of South African animals (see 2.32). These are attributed to Claudius, as their style is similar to the drawings. These illustrations were as follows:

1686:90 'zèmbras': differs from IPA 419, AM 5.
1686:104 'cerf du cap': unknown as drawing
– 'rhinocéros': differs from drawings, is Indian rhinoceros
– 'vache marine': differs from AM 4
1686:108 'céraste': like AM 25H
1686:108 'caméleon': like AM 25F
1686:110 'grand lézard': like TC 743, IPA 670a.
1686:110 'petit lézard': same animal as IPA 424 in other position.

3.2.7 *Petiver's Gazophylacii*

James Petiver (1663/4-1718) published his *Gazophylacii naturae* in 1702-1709. On pl.LVIII we find the chameleon and lizard also shown in Tachard (1686:109, 110). They may have been copied from Tachard, although Petiver had access to other Claudius drawings (Gunn & Codd 1981:36-38).

CHAPTER 4

Reports on South African Animals 1700-1750

In this chapter the records about the people who mentioned animals at the Cape of Good Hope are continued. There is not much improvement over the preceding period and the tradition of copying from earlier authors or reporting from hearsay is continued. Two books were influential in Europe: Kolb 1719 and Valentijn 1726. Although they treated the Cape animals extensively, they included little new information compared to Hondius (1652).

4.46 Tappen, 1704

David Tappen (or Tappe, b.1649) from Germany, went to the East Indies in the service of the VOC. He was at the Cape of Good Hope twice, 29 November – 13 December 1668 and 25 March – 29 April 1682. He published a book in 1704 (not seen), of which Raven-Hart (1967a, 1971:110-111, 236-242) translated the parts about the Cape. There is a long description of the Hottentots, but only some animals were mentioned (Raven-Hart 1971:237-241):

Apes called 'pavianen' (on Table Mt.), wild horses, asses, tiger-cats, tigers, ostrich, rhinoceros.

4.47 Langhansz, 1705

Christoph Langhansz of Breslau was a soldier with the VOC. He was at the Cape from 26 May – 23 June 1694. He wrote a book in German in 1705, with a second edition of 1715. Raven-Hart (1965b, 1971:400-410) translated the section on the Cape. There was a long list of animal names (page references to 1705):

Löwen (even near Cape Town, p.120-121), tyger (p.125), tyger-pusch-katze (p.126), wilde esel (a stuffed skin in the Fort, p.127), stachel-schweine (p.127), bavianen (p.128), strauß-vögel (p.131), raben (with white stripe on the neck, p.132), meven, see-vögeln (p.132), sardinen = sardellen, steinbrassen, see-krebse, krabben, see-kühe, robben = see-hunde, roche = hottentot-fisch, nord-caper (p.133).

4.48 Starrenburg, journey 1705

Johannes Starrenburg of Lübeck (Germany) came to the Cape in 1695. He was appointed landdros of Swellendam in July 1705, but recalled to Holland in 1707. He led an expedition in the northern direction trying to find means to barter cows, 16 October – 7 December 1705. His journal was printed by Valentijn (1726) and thus it became generally available. Molsbergen (1916,II:3-8) provided a summary, while the editors of a recent edition of Valentijn's work gave an English translation, footnotes and a tracing of the route on a modern map (Valentijn 1973:14-57). The study of nature was not one of the expedition's goals, and the journal mentioned animals only incidentally. Page references are to Valentijn (1973).

25 October 1705, Verlorevlei (32°27'S, 18°32'E): zeekoe (p.22, 23).

28 October 1705, Tythouw River (= Langvlei River, c.32°12'S, 18°22'E): flamingos, gansen, eenden (p.28).

30 October 1705, north of Jakhals River: plain was 'full of rocks and mole-holes, into which the horses and oxen continually fell up to their knees' (p.30, 31 and again on 2 November, p.32, 33).

30 October 1705, Roodeklipheuvel (32°4'S, 18°30'E): rhinocer (p.30, 31)

30 October 1705, Olofs Fontein (32°1'S, 18°31'E) called 'Tho Koe' after a captain who was eaten by a lion here (p.30, 31).

2 November 1705, Olifants River near Klawer (31°45'S, 18°37'E): leeuw. Starrenburg here included a long account how a lion came to the tents and killed Jan Smit van Antwerpen. The animal hid in a bush and survived some 200 musket shots. It was later killed, 'it was a terribly large beast' (p.34-39). Valentijn included a plate illustrating this incident.

7 November 1705, Olifants River: jakhals (p.42, 43).

15 November 1705, Groene Kraal (? 32°47'S, 18°48'E): rhinocer (p.46, 47).

4.49 Maxwell, 1707

John Maxwell wrote a letter to the president of the Royal Society of London with a description of the Cape of Good Hope. It was published in the *Philosophical Transactions* of 1707, reprinted by Botha (1924:49-56). There is a long list of animals, many given in very general terms (1707:2428):

lion, tigers, leopards, elephants, rhinocerots, elks, several sorts of beautifull wild goats, deer, wild asses, jackalls, baboons, monkeys, manatees = sea cows, ostriches, pelicans, hawks, magpies, wild peacocks, cranes, guinea hens, penguins, flamingoes, rockducks, partridges, pheasants, geese, ducks.

4.50 Funnell, 1707

William Funnell accompanied William Dampier (2.45) on his voyage round the world and visited the Cape in 1691. While there, he heard that the authorities recompensed the killing of a lion by 52 guilders, a tyger by 24 guilders. A certain Scotsman killed 4 'lions', 3 'tygers', and 3 'wild elephants' during his stay. He mentioned the presence of 'ostridge and seals' (Funnell 1707:293, 294).

4.51 Leguat, 1708

François Leguat (1638-1735) was one of a party of 10 French protestants volunteering to colonise Réunion. He visited the Cape twice, 13 January – 13 February 1691 and 12 February – 8 March 1698. His account of the journey was published in 1708 both in French and in English. There were later translations into German and Dutch. The 1708 English edition was reprinted by the Hakluyt Society (Works, first series 82, 83). The section on the Cape was summarized by Strangman (1936:215-223) and Raven-Hart (1971:374-376, 426-438). The book included two engravings of African animals. The first depicted a 'vache marine' or 'sea-cow' (a hippopotamus), the second is a curious plate of 5 rhinoceroses, all slightly different, but all single-horned (3 were more or less directly copied from the engraving by Dürer of 1515, 2 were more original, cf. Clarke 1986). A few animals were mentioned, following the French edition:

vache marine (I:35), cerf, boeufs, moutons, chevreuils, singes, éléphans, rhinocéros, elans, lions, tigres, leopards, sanglier, gazelles, porc-épics, chevaux, anes, chiens, chats sauvages (1708,II:145).

4.52 Ziegenbalg and Plütscho, 1708

Bartholomäus Ziegenbalg (1683-1719) and Heinrich Plütscho went as missionaries to the East Indies, stopping at the Cape in January 1706. They wrote about their journey, which book was first published in German in 1708 with several later editions (I consulted a third edition dated 1709). There was an English translation in 1709. Spohr (1967) gave some notes about the section on the Cape. Ziegenbalg visited the gardens of the company and recorded some animals generally found in the country (Ziegenbalg & Plütscho 1709:31):

see-kuh, nasenthier, elends-thier, wilde pferd, mause-hund, dachse, wilde böcke, hirsche, löwen, fische mit stracken spitzigen Stacheln.

4.53 Cnoll, journey 1710

Govert Cnoll undertook a journey to the region around Caledon east of the Cape in 1710. His manuscript report 'Dag register begrijpende in 't cort de reijse door d'heer commissaris Cnoll...' (ARA) was printed by Botha (1924:60-90).

On 23 January 1710, at Caledon (34°14'S, 18°26'E) Cnoll reported: bonte bokken, patrysen, vesanten, hartebeesten, rheebocken, wolf, leeuwen, tygers.

On 9 February 1710 travelling between Caledon and the Palmiet River (c.34°15'S, 19°2'E) he saw bontebokken, hartebeesten, wilde paarden.

4.54 Van Putten, journey 1710

The merchant Willem van Putten travelled to Caledon in December 1710. His 'Dagh verhaal wegens de reyse gedaan van Cabo de Goede Hoop, na 't warme water ...' (ARA) was printed by Botha (1924:72-78, 91-97). At the Palmiet River (34°15'S, 19°2'E) van Putten recorded 'tyger' and 'tygerboschkat' (Botha 1924:73, 93).

4.55 Lockyer, 1711

Charles Lockyer visited the Cape from 22 May – 12 July 1706. He went to see the 'Company's House at the great garden' where he had to pay a shilling entrance fee. Apparently all animals mentioned were seen there (Lockyer 1711:295-296):

lyons, leopards, tyger-cats, wild asses (about 13 hands high), a species of deer (5 ½ feet high at the shoulder, of a deer colour, long black horns without branches, like an antelope), hippopotamus = sea-cow, rhinoceros, widgin, teal, larks, sparrows, doves, canary birds, crows with white rings about the neck.

4.56 Bogaert, 1711

Abraham Bogaert (1663-1727), employed by the VOC, was at the Cape 26 July – 4 August 1702. His description of that part of the world is quite extensive in his book published in Dutch in 1711. Raven-Hart (1971:477-491) translated the part about the Cape. It is clear that Bogaert copied much information from others. He presented a long enumeration of animals. This list is largely copied directly from Nieuhof (1682) with a few omissions and transpositions. He mentioned the following animals (1711:103-106):

Land animals: leeuwen, tygers, wolven, olifanten, reinosters, luipers, yzere varkens, wilde paarden, ezels, boskatten, jakhalzen, wilde koeyen, rheekalveren, harten, steenbokken, hazen, konynen, steendassen, (animal like rhinoceros with 2 horns);

In the sea: zeepaarden, zeevarkens, zeekatten, zeekoeien, robben = zeebeeren, landschildpadden, zeeschildpadden;

Flying animals: scholfers, bergenden, pylsteerten, slobben, telingen, smienten, faizanten, patryzen (4 kinds), houtsnippen, watersnippen, rotganzen, quakkelen, leeuwerken, kanaryvogels, musschen, rietvogels, reigers (3 kinds), lepelaars, pauwen, kraanen, havikken, exters, ravens, struisvogelen, meeuwen, kropganzen, kaapvogels, jan van genten, gavoityns, faysons, mangas de velludo, garagians, alkatraces, pinguyns, byen;

Water animals: harders, elften, steenbraassems, zantkruipers, huygen, klipvissen, kreeften, oesters, mosselen, tongen.

4.57 Wintergerst, 1712

Martin Wintergerst, born in Memmingen c.1670, travelled around Europe as a private adventurer. In May 1699 he signed with the VOC and visited the Cape of Good Hope in October-November 1699, and three times later. He settled in his home town in 1709. His book was published in 1712 in German. I saw two editions of 1713, with different titles and publishers but the same pagination. There was a reprint in 1932. Raven-Hart (1971a, 1971:458-464) translated the section about the Cape. Wintergerst mentioned some animals (1713:208-210, 1932:18-20):

Löwen, tiger-thier, elephanten (different from those in Ceylon), rinoceros (a stuffed one was seen), wilde oder wald-esel, straussen, welsche hüner, canarien-vögel.

4.58 Buttner, stay 1713-1730

Johan Daniel Buttner (1690-1730) of Halle stayed at the Cape of Good Hope in the service of the VOC from 1713-1717 and 1723-1730. He arrived in March 1713 as a soldier but acquired some medical knowledge and in 1717 he was promoted to third physician. From 1717 to 1723 he went to the East Indies and probably visited Holland. He returned to Cape Town in 1723 where he started a private medical practice. He died in 1730. Buttner compiled a 'Waare relation und Beschrijbung von Cabo de Goede Hoop' probably around 1716. There are three manuscripts in the South African Library, Cape Town which are extracts from Buttner's account made by J.N.von Dessin (1704-1761). The history and contents of these manuscripts were introduced by G.S.Nienaber and R.Raven-Hart in their transcription and translation published in 1970. Buttner's account include some chapters on the Cape animals, first a general list followed by a more extensive description. The names given below are those in the German text; page references are taken from Nienaber & Raven-Hart (1970):

Land animals: Eliphant (p.49, 94), rhinosterus (p.50, 95), seekühe (p.51, 95), büffelochsen, elende, grossen rehe, kleine sorte von rhehen, gemsböcke, hirsche (in large troups) (p.51, 96), blaue bock ('von Couleur recht himmelblau in der grösse wie von obengemelten hirschen ist gesaget, wie auch die gestalt von horns, halten sich bis 20 in einem trup.' The editors called it *Connochaetes gnou*), bunte böcke (in groups of 500-600), duijker, steinböcke (p.52, 96), hasen, andere sort von hasen, klipspringers, wilde schweine, ratelthier, eyser-oder stachelschweine, erdschwein (p.52, 97), murmelthier, canienchens (p.53, 97), wilden pferden, wilde esel (p.53, 98), löwe (p.54, 98), tieger, leopard, tiegerwolf (p.55, 99), bergwolf, tiegerbuschkatze, musqueliatkatze (p.55, 100), rohten katze, graue wilde katze, stinkpinsen, jakhals, bavianen (p.56, 100), bunten mäushunde ('nicht grösser als ein Eichorn, haben grose flecken braun und weis durch einander' which does not fit *Poecilogale albinucha*, p.57, 101), graue mäushunde (*Galerella pulverulenta*), schwartze mäushunde (?*Atilax paludinosus*), dachshund (*Mellivora capensis*), wilde hunde (2 kinds?) (p.57, 101);

Birds: vogelstraus (p.57,101), grosen pfauen, kleine pfauen, rebhüner ('rohtliche federn in die Flügels, *Francolinus levaillantii*), graue rebhüner (*F.capensis*), fasanen, wachteln, bergschwalben, hausschwalben, lerchen (p.58, 102), gelbe canarienvogel, bunte canarienvogel, zeisgen, rothbeckjes, finken, sperlinge, bachsteltzen (p.59, 102), spreu-

wen, honigvögel, wilde tauben, buschtauben, turteltauben, kraniche, kurhahne, langsteertje [= ?], graue adler, schwarze adler (*Aquila verreauxii*) (p.60, 103), schlangenfresser, eulen, graue falken, falke ('like a cuckoo' ?) (p.60, 104), stosfalk, kuhchendiebe, raben (2 kinds), kolkraben, kiebitzen, huhu, flamincken, wilde gänse, bergenten (p.61, 104), gelbbecke oder schwartze entvögels, schlüppen, deuchlinge (p.61, 105), wasserhüner, wilpen, seetauben, pulschnepfen, strandlauffers, pikowynen, wasserduykers, meeven, mallegasen, kropgänse = löffelgänse (p.62, 105), reiher (p.62, 106).

4.59 Vogel, 1716

Johann Wilhelm Vogel went to the East Indies in the service of the VOC. He was at the Cape of Good Hope twice, 18 April – 12 May 1679 and 16 March – 20 April 1688. He published an account of his travels as early as 1690, but later he presented a more informative version in 1716 which was used here. Raven-Hart (1971:211-221, 336-340) translated the sections about the Cape. A few animals were mentioned by name (1716:56-57):

Hirsche, wilde schweine, rehe, steinböcke, hasen, caninichen, pfauen, fasanen, feldhühnern, craan voogels = kranniche, löwen, elephanten, tiger, rhinocer = naßhörner, leoparden, wölffe, wilde hunde, elende, affen, schlangen, strauß-vögel.

4.60 Beeckman, 1718

Daniel Beeckman visited the Cape from 4 April – 12 May 1715 when he returned from Borneo and Java. He went to the company's gardens where he saw 'a House, built for that purpose, wherein are kept a collection of the skins of a multitude of strange beasts which Africa is famous for, so artificially and nicely stuff'd, that at first you would be surpriz'd at them, and would believe to be really live creatures.' This is stated in his book published in English in 1718, reprinted in Botha (1924:112-118) as far as the Cape is concerned. He enumerated the animals seen in the museum in rather general terms:

lions, tygers, leopards, elephants, rhinoceros's, wild cats, antelopes of several sorts, many large unsizable deer, and a creature call'd a striped ass (1718:179). The latter was a zebra. There were also a 'manitee, or a sea-cow.

He continued to list some birds known in the country:

ducks, teal, widgin, curlew, partridge, pheasant, ostrich, canary birds and many pintado birds. He also recorded whales and seals.

There is a plate (facing p.180) showing a sea-cow (with the teeth in the lower jaw clearly shown).

4.61 Silleman & Thysz, 1718

Daniel Silleman was at the the Cape in 1693. The short account by Silleman & Thysz. published in 1718 mentioned a few animals, either seen around the Cape or reported from hearsay (1718:14):

zeekoeyen, oliphanten, elanden, vogel-struyssen, harte-beesten, endtvogel.

4.62 Kolb, 1719

Peter Kolb (not: Kolbe, Kolben) was born on 10 October 1675 in Dörflas, Germany. Some biographical notes are found in German (1922), Jopp (1979), Mohr (1967:9) and Schutte (1982b). Kolb went to school in Marktredwitz and from 1688 in Wunsiedel where he graduated in 1694. He next went to Neuremberg, but his financial situation became precarious after the death of his father in 1691. After working for some years, he enrolled at the University of Halle in 1700 studying philosophy, mathematics, physics, logic, metaphysics, oriental languages and theology. He was promoted to doctor in philosophy in 1703 with a dissertation *De natura cometarum*. In this period, Kolb became acquainted with Baron Bernhard Friedrich von Krosigk and he taught his son the principles of mathematics. Von Krosigk was much interested in astronomy and he sent Kolb to the Cape of Good Hope to make astronomical observations. Kolb left Holland by ship on 8 January 1705 and reached the Cape on 12 June 1705. During the first years at the Cape, Kolb studied the astronomy, geography and natural history of this part of the world. In 1709 von Krosigk died and Kolb entered the service of the VOC. On 22 October 1711 he was appointed to secretary at Stellenbosch. There is no evidence about any extended travels in the interior and Kolb must have gathered his information near the Cape. In April 1712, Kolb became almost blind and he had to return to Europe, leaving the Cape on 9 April 1713. He was successfully treated in Germany and returned to his home in 1715. After a few years, in 1718, he was appointed as rektor or headmaster of a secondary school in Neustadt a.d.Aisch. He remained there until his death on 31 December 1726.

Kolb published in 1719 in German an extensive account of his observations made in South Africa. A Dutch translation, with new plates, appeared in 1727, followed by an English one in 1731 and a French one in 1741-1743. Later workers who consulted the very voluminous natural history section in Kolb's book had few good words about it. De la Caille (1763) included a long section of criticism. Sparrman, in a letter to George Forster of 25 July 1777, called him the 'most impudent lying contradictory fellow' (Leuschner et al. 1982:42). Part of this criticism must stem from a general feeling of disappointment which we even sense today. Kolb treated the various kinds of animals in Chapters XI – XIV, which occupy about 65 quarto pages. The species are enumerated in alphabetical order and briefly described. It is remarkable how little new or even useful information was presented. Kolb often excused himself, saying that he was not a zoologist. At the start of the chapter on birds (1719:173) for instance, he mentioned having lost his notes which occasioned the short list of birds. When the identity of the animal is not clear from the name and more information is sought in the descriptions, these almost invariably are so general and meaningless that one cannot reach any conclusions. Kolb compared the African species with those in Europe and many of his notes refer to those European animals. This, of course, does not make the contribution by Kolb any worse than that of his contemporaries and we must call his book a brave attempt. However, to read and study 65 pages without much of value, does give the feeling of wasted time.

The engravings in the various editions of the book differ from each other as explained by Kennedy (1975,I:K27-K128). Some in the Dutch edition were new ones engraved by Jan Wandelaar (1690-1759). The zoological plates present in the German and Dutch editions are mentioned below.

Kolb 1719: zoological plates

Pl.II (p.140), fig.1 'Der Bavianen Garten Diebstal' with many small monkeys (implied to be *Papio ursinus*).

– fig.2 'Vorstellung eines blauen Bockes'. As noted by Husson & Holthuis (1975:58), this inscription was erroneous and the engraving also exists in a second state with the same animal but inscribed 'Vorstellung eines frembden Bockes' showing *Tragelaphus strepsiceros*.

Pl.III (p.145), fig.1 'Wie die Elendthier in Africa gefangen worden' showing maybe *Taurotragus oryx*.
– fig.2 'Zecoa oder Africanischer Waldesel' (*Equus zebra*).
Pl.IV (p.158), fig.1 'Wie die Maulwurfe oder Hamster am Capo Bonae Spei getötet worden'(animal is not shown, except head in trap).
– figs.2,3, 'Vorstellung eines Rhinoceros ... und Elephanten' with one illustration of a single-horned rhinoceros fighting an elephant, copied from a drawing or mezzotint by Francis Barlow, c.1684-1685 (Clarke 1986:40, figs.17,18).
Pl.V (p.165) with six small figures: fig.1 'Bavian', fig.2 'Büffel', fig.3 'Löwe u. Löwin', fig.4 'Ichneumon', fig.5 'Rehe' and fig.6 'Porcellus Indicus' (? *Georychus*).
Pl.VI (p.172) with 6 small figures: fig.1 'Seekuh', fig.2 'Schaff' (domestic sheep), fig.3 'Ziebet', fig.4 'Schilt Kröte', fig.5 'Tieger-Wolff' and fig.6 'Stachel-Schwein'.
Pl.VII (p.178) with 7 small birds: fig.1 'Indian.Huhn', fig.2 'Honig Beisser' (?), fig.3 'Löffelgans', fig.4 'Flamingos', fig.5 'Indian.Pfau', fig.6 'Indian. Sperling' (?) and fig.7 'Straus'.
Pl.VIII (p.194) with 10 small figures of various fishes labelled Gold Fisch, Hepatus, Stein Brasmen, Fliegende Fisch, Meer Hecht, Stein Roch, Raucher-Roch, Gefleckte Zitterfisch, Zitterfisch, See Low (the last is *Arctocephalus pusillus*).
Pl.IX (p.197) with 7 small figures of various animals: 'Canis carcharias order Fisch Hund, Fisch Hunds Gebiss, Blindschleiche, Ein Horn von einer Schlange, Gehörnnete Schlang, Cobra di Capello von vorn, von hinten.
Pl.XVIII (p.535) 'Der Hottentotten Manier des Elephanten zu fangen' with some elephants.

Kolb 1727: zoological plates

The engravings in the Dutch edition are not numbered.

(p.166) 'Tuindievery der Baviaanen' quite different from 1719,pl.II.
(p.170) 'Een vreemde bok' as 1719, pl.II fig.2 in reverse, with an added landscape.
(p.171) 'Baviaen en Buffel' like 1719, pl.V, but baboon differs.
(p.183) 'Leeuw, leeuwin, muishond, rheebok, Javaansch varken' like 1719, pl.V figs.3-6 in different composition.
(p.174) 'Manier van Elandtdieren te vangen' as 1719, pl.VI fig.1 in different composition.
(p.175) 'Africaansche woud ezel' as 1719, pl.III fig.2 in reverse.
(p.176) 'Olyfant' different from 1719, pl.IV fig.3.
(p.187) 'Het vangen van de Afrikaansche mollen' as 1719, pl.IV fig.1 in different composition.
(p.189) 'Rhinoceros zoo als die meest afgebeeldt worden' based on Dürer's woodcut, different from 1719, pl.IV fig.2.
(p.190) 'Rhinoceros volgens deze beschrijving', a new engraving of a black rhinoceros (*Diceros bicornis*) possibly made after a stuffed young specimen kept in the collection of Leiden University (Rookmaaker 1976).
(p.200) 7 figures as 1719, pl.VI in reverse.
(p.213) 4 figures as 1719, pl.VII figs.1-4 in reverse.
(p.218) 3 figures as 1719, pl.VII figs.5-7 in reverse.
(p.232) 5 figures as 1719, pl.VIII, upper 5 figures.
(p.246) 5 figures as 1719, pl.VIII, lower 5 figures.
(p.235) 6 figures as 1719, pl.IX not reversed.
(vol.2, p.114) 'Manier om groote dieren te vangen' as 1719, pl.XVIII not reversed, with different landscape.

Kolb mentioned the following animals in various chapters. His order was alphabetical according to the German names, which is followed here.

Land animals (1719:136-173): affen (absent), bavianen, böcken (a general term for antelopes), blaue böcke (hair smooth with blueish gloss, which colour turns grey after the animal is shot; Kolb saw 10 specimens in 1708 on the way to Caledon, one of which was shot and eaten, 1719:142), bunde böcke (in 1708 more than 1000 animals in a group), bock der keinen namen (1719:142, probably *Tragelaphus strepsiceros*, cf. Husson & Holthuis 1975:60), büffel-ochsen, chameleones, daxen, africanische elendthier (with reference to pl.III f.1), esel (imported), wilder esel = onager = zebra, elephanten, fröschen, gemsbock, greissbock, hasen (2 species, one with a reddish tail), füchse = jackhals, hirschen, hunde (tame), wilde hunde, kaninichen, graue wilde katzen, blaue katzen (= ?), rothe katzen, tyger-busch-katzen, bisam-katze = musceliat-katze, löwe, leoparden = panter-thiere, luchse, maulwürffen, ratelmaus, maulesel (domestic?), ichneumon = maushund, murmelthier, nashorn-thier, wilde pferde (only known from drawing by Olof Bergh made during his expedition in December 1705), ratten, rheebock, salamander, schildkröten, wilde schweine, erd-schweine, stachelschweine, steinbock, kleines böcklein (small like a hare, small horns, maybe *Philantomba monticola*), stinckbincksem, see-kuh, taucherbock, tyger-thier, wieseln = iltis, gemeine wölffe, tyger-wölffe.

Flying animals (1719:173-190): adler, endten-stösser, meer-adler, steinbreeker = beinbreeker, amseln (including: ringel-amsel, wasser-amsel = strandlauffer), blau-vogel, bachsteltzen, canarien-vögel, droscheln, edolio, emmerlingen = gelblingen = emmeritzen = koornvogels, endten, wilde endten, eulen = nachteulen, falcken, fasanen, fincken, serinus, fledermäuse, flamingos, berg-gans, kropff-gans, wasser-gans, gras-mücke, grünling, gibitzen, geyer, knorrhan, knorhenne, wasser-hünern, habichte, hetzen = elstern, hänfflinge, kernbeisser = steinbeisser, krähen, see-krähe, kranich-vögel, lerchen, löfler = pelican, malagas, meuben, meisen, muckenhonigfresser = bienenfresser, langzung, pinguinen, pfau, raben, reb-hüner, rothalein = roth-brustlein = roth-kehligen = rothbecke = roth-schwanz, riet-schnepffen, holzschnepffen, wasser-schnepffen, pful-schnepffen, schwalben, see-schwalbe, spatzen = sperlinge, staaren, stein-bicker = strandlauffer, strauss, tauben, turtel-tauben, berg-tauben, busch-*tauben, see-tauben*, taucher, wein-trossel, tholen = dolen, wachteln, zaunschlupffern, zeisslein.

Water animals (1719:190-211, of which p.195-202 are absent without a break in the text): aufblaser, alikrücken, austern, barben, benneitfisch, braun-fisch, cabeliau, delphin, elfft, fliegende fisch, haring = see-schwalben, gold-fisch, grundeln, krebse = graneeler, haringe, harter, hay, hechte, hottentots-fische, hummers, jacob evertsen = steinbrachsmen, igel-schnecken, meer-igel-schnecken, irrlitzen, karpffen, kegel-schnecken, klipp-kousen, wasser-krebse, krabben, muschelkrabben = muschel-krebse, klipp-fischen, loots-männlein, meer-löwen = see-löwen, meer-sternen, meer-sonnen, meer-spritzen, meer-schwein, wasser-muscheln, nord-caper (whale), oel-schnecken, pagger-fisch, palling, perlen-muscheln = perlen-schnecken, roch-fisch, sand-knyper, seehunde, silber-fische, speringe, schnecken, schrauben-schnecke, steinbrasmen, stumpfnasen, meer-zungen, tonnein-fische, trill-fisch = torpedo.

Snakes and invertebrates (1719:212-226): aspis, augenschlange, baumschlange, blindschleichen, brandschlange = durstschlange, cobra de capello, haarschlange, meer-floh, meer-lauss, würme, wasser-wurm, rother würme, wasser-pferd = meer-pferd, blut-saugern, wasser-grillen, wasser-käfer, wasser-maus, wasser-schlangen, ameisen (4 kinds), bienen, fliegen (3 kinds), grüne fliegen, mücken, flöhe, erd-floh, heuschrecken, käfer, gold-käfer, gras-grüne käfer, läufe, weg-läufe = wantzen, rauppen, schaben, motten, kleine schnecklein, wegschnecken, scorpionen, spinnen, schwaben = kakkerlaken, tausendbeine, wespen, regen-würmer, holz-wurm, korn-wurm.

4.63 Valentijn, 1726

François Valentijn (1666-1727) worked most of his life as a preacher or minister in the East Indies with the VOC. His life and work were sketched by P.Serton in the VRS edition of Valentijn (1971:2-30). From 1685 to 1694, Valentijn was in the Moluccas, from 1706 – 1713 in East Java and Ambon. In the periods between and after these years abroad, he lived in Dordrecht, Holland. From 1714 onwards he devoted his time to the writing of his *Oud en Nieuw Oostindiën*. This book was published in 1726 in 5 parts (8 folio volumes). It meant to give an historical account and geographical descriptions of all Dutch settlements in the east. The Cape of Good Hope is treated in Volume 5 Part 2 (about 260 folio pages). Valentijn was at the Cape on four occcasions, 30 days in 1685, 51 days in 1695, 39

days in 1705 and 70 days in 1714. He never travelled far into the interior and probably did not go beyond Stellenbosch. His description was of course, not all original relying on published accounts by Dapper (1668), Bogaert (1711), Kolb (1719) and others.

The fifth chapter of Valentijn's volume reproduced the journals of the expeditions by Simon van der Stel in 1685 (3.2.1) and Johannes Starrenburg in 1705 (4.48). The sixth chapter was a review of the animals present at the Cape. Some species are also mentioned in other parts of the work while describing the various regions, which have here been added in the sequence of the 6th chapter to avoid repetition. I used the recent edition published by the Van Riebeeck Society in 2 volumes (1971, 1973) which gives both the original Dutch text and an English translation. The names of the animals are those from the Dutch text.

The book contained four engravings of zoological interest as well as a plan of the Company's garden, without indication showing the museum or menagerie. These plates are:

a. 'Geval van een hottentot met een leeuw' showing a lion which attacks people (see Starrenburg's account).
b. 'Wilde gestreepte ezels' (p.114) illustrated after a drawing made by Constantyn Ranst, who in 1677 was commissioner at the Cape. It is a heavily striped *Equus zebra*.
c. '46. Korhoen, 47. Flamingos vogel' (p.115 upper), 2 birds.
d. '48. Kroonvogel, 49. Struysvogel, 50. Ey van de struysvogel' (p.115 below) showing on the right *Balearica regulorum* and on the left *Struthio camelus*.

Valentijn described the museum in the Company's gardens in some detail, as shown in Chapter 1. The animals of the Cape were listed in his Chapter 6 (1973:112 ff.):

Wild animals (mammals and reptiles): olifant (present on Blaauwe berg and Stellenbosch, 1971:76-140), rhinocer, leeuw (on Leeuwenberg, 1971:66, and Blaauwe berg 1971:76), tyger, luypaarden, losch, ichneumon, wolf, tyger-wolf, tyger-boschkat, wilde honden, landschildpadden (different kinds), aapen, paepoagus (one shot by Olof Bergh in December 1705, probably the hippopotamus), yzere varkens = egels, wilde ezels, wilde paarden, haazen (3 kinds), elanden, harten, gemsen, rheen, wilde bokken (2 horns, 3 broad stripes on the forehead), steenbokken, steendassen (on Dassen Island, 1971:44), konynen, chamelions, hagedissen (different kinds), (snakes:) aspis, hoornslang, prester, cobra di capello, vleermuizen.

Birds (pp.120-122): struisvogel, arenden (several kinds), kroonvogel, paauwen, kraanvogel, havik, raaf, kraaj, exter, meeuw, kropgans, pinguyns, korhoender, kalkoen, honingpikker, roodbek, vink (4 kinds), jan van genten = mallegaas, papegaayen, strandloopers, flamingos-vogel, reigers (several kinds), bosduiven, quikstaarten, meezen (several kinds), putters, swaluwen, spreeuwen, dominee (black bird with white ring around the neck), faizanten, rotganzen, endvogels, talingen, pylstaarten (several kinds), bergenden, quartels, tortelduiven, houtsnippen, watersnippen, leeuwerken, kanarivogels, musschen (several kinds), lepelaars, (unnamed bird, small like a swallow, sky-blue and exceptionally bright colour, red beak), pinguins = withoofden (on Dassen Island, 1971:44), kaapse duifkens (on approach of Cape, 1971:34).

Invertebrates (p.122, 124, 126): luizen, weegluizen, muggen, vliegen, sprinkhaanen, byen, rupzen, vloyen, kakkerlakken, duizendbeenen, scorpioenen, spinnekoppen, groene vliegen, wespen, houtworm, koornworm = kalanders, mosselen, kreeften, oesters, grundels, paaling, torpedos = krampvisschen, kaapse pekelhaaring, zand-knypers, zee-egels, rivier-krabben, lootsmannekens, jacob evertzen, zeesterren, riviermosselen, zee-peerdekens, zeehorenkens, nautilus.

Fishes (and some mentioned among the invertebrates, p.124): harder, hottentot-visch, stompneus, steenbrassem, elft, roch, tong, spiering, kaapse zalm, pampusvisch, springer, klipvisch, kaapse kabeljauw;– and some aquatic mammals mentioned among the fishes and invertebrates: walvisschen = noordkaper, zeekoejen, zeepaarden, zeeleeuwen, zeerobben = zeehonden.

4.64 Barchewitz, 1730

Ernst Christoph Barchewitz from Germany was employed by the VOC and spent the years between 1709 and 1721 in different parts of the East Indies (Kratz 1981:72-73). He was at the Cape of Good Hope in 1709, which he described in 1730, with a second edition in 1751. He listed some animals in rather general terms (1730:64-66):

Bavianen, elends-thiere, elephanten, hirsche, wilde hunde, muscaliatkatze = bisamkatze, löwen, leoparden, panther, nashörner, tyger, tygerwölffe, wölffe, luchsen, wilde katzen, stachelschweine, see-kühe, steinböcke, taucher-böcke, flamingos, berggans, wassergans, kropff-gans, knorchans, knorrhannen, löffler = schlangen-fresser, kraniche, meuben, langzungen, piegwieren, rebhüner, spreuben = staaren, straussen, strandlopers, bergtaube, buschtaube, seetaube, schneppen, wachseln, chamaleons.

4.65 Schröder, 1749

Joh. Heinrich Schröder from Germany was at the Cape twice, 24 February – 15 March 1737 and 2 February – 11 April 1745. He recorded that he often went to hunt 'rhinoceros' and found sometimes over 20 of them together after sunset. Only the skin and horns were useful. There were also 'tiger-thiere' which brought damage to people and cattle (1749:238).

CHAPTER 5

Reports about South African animals 1750-1790

In this chapter the reports dated between 1750 and 1790 are given in continuation of those in Chapters 2 and 4.

5.66 Schwarz, 1751

Georg Bernhardt Schwarz travelled to the East Indies around 1739 and after his return he published some results in a German book of 1751. He stayed two weeks at the Cape of Good Hope where he mentioned a few animals (1751:30):

Löwen, tiger, elephanten, rhinocer = naaßhörner, grosse Affen (said to differ from the next species:) Pavianen, wilde Hunde, wilde esel, hirsch, elendthier, wilde schwein, murmelthier, vogel-straussen.

5.67 Coetsé, journey 1760

Jacobus Coetsé Jansz. (1730-1804) was a farmer at Bosjesmanskloof and Klipfontein near the Piketberg. In 1760 he applied to governor Ryk Tulbagh for permission to travel north to shoot elephants. This journey took place from 14 July to 18 November 1760. Coetsé was not able to write and his short report was compiled after his return to Cape Town. It was printed by Molsbergen (1916,II: 18-23) and again translated by Moritz (1915:163-165, see Coetsé 1983). Coetsé is generally regarded as the first white person to cross the Orange River into the present Namibia reaching one day's journey north of Warmbad (Vedder 1981:18). His trip was unsuccessful in so far that he only shot 2 elephants (assuming that he told the exact figure to the authorities). The journal only mentions a few animals.

Loxodonta africana, 'oliphants', 2 shot between the Olifants River and the Groen River, about 31°S, 18°E.

Hippopotamus amphibius, 'zeekoeyen' at the 'Groote rivier' or Orange River near Ramans Drift, 28°53'S, 18°20'E.

In the country of the Great Amacquas, i.e. the region near the Leeuwen River (= Ham River) between the Orange River and Warmbad, he recorded three species:

Panthera leo, 'leeuwen' in abundance.

Diceros bicornis, 'renosters'

Giraffa camelopardalis, 'nog gantsch onbekend dier, het welk wel niet soo swaar als een oliphant, dog egter vrij hoger van lighaem zijnde, den relatant oversulx, soo hierom als om den langen hals, gebulte rug en hooge beenen, doed veronderstellen' (totally unknown animal, not as heavy as an elephant, but much higher, probably its relative due to the long neck, humped back and long legs). Coetsé shot 2 females and took a young which he kept alive for 14 days. However, he brought its hide to Cape Town to show the animal's characteristics.

5.68 De la Caille, 1763

Nicolas Louis de la Caille (1713-1762) was trained as an astronomer. He went to the Cape of Good Hope to make astronomical observations from April 1751 to 1753 (Anon. 1876). He published some remarks on his journey and about the life at the Cape, which appeared posthumously in Paris in 1763. There was a second, unrevised, edition in 1776. An English translation with annotations was prepared by Raven-Hart in 1976. The book consists of 6 parts: a preface by the editor who published the account after the death of De la Caille; a 'discours historique' with notes on pp.1-108; the 'Journal historique du voyage' giving details about the journey in chronological sequence, pp.109-256; an account on the 'Coutumes des Hottentots et des habitans du Cap de Bonne-Espérance' on pp.257-312; 'Notes et reflexions critiques sur la description du Cap de Bonne-Espérance par Pierre Kolbes' on pp.315-353 about Kolb's French editions; and some errata and an index. De la Caille only mentioned a few animals in passing in his account of the journey.

'Babouins' seen on Contreberg (33°27'S, 18°27'E) on 7 September 1751 (1763:146).

'Poisson' caught in Hout Bay. The book contains a small sketch which might depict a foetal dolphin (1763:147, Raven-Hart in 1976:12, 50).

'Rhinocéros', a horn was seen in the house of Dessin, '26 inches long from the tip excluding the base, which may have measured another 8 or 9 inches' (1763:157). Joachim Nikolaus von Dessin left his books to the Cape church council, and they are still preserved in the South African Library, Cape Town. Some specimens from his collection are in the South African Museum, Cape Town (Bax 1970).

'Eléphans' seen on the Berg River. The editor of the 1763 edition added that De la Caille brought to France the tusk of a young specimen, 3 feet long (1763:158).

'Hippopotame' seen in the Berg River. De la Caille also saw a dried head (1763:162).

'Pinguin', its egg was eaten (1763:165).

'Poisson' found on the beach, resembling a stuffed one in the collection of Reinius. A small drawing, printed upside down, was given (1763:167). It probably was *Ranzana typus* (Raven-Hart in 1976:50).

'Babouins' on Riebeck-Castel Mountain (Riebeeck Kasteel, 23°23'S, 18°50'E) (1763:176).

'Marmottes' in the same place (1763:176).

'Chevaux sauvages' in the same place, but not seen (1763:176).

'Blêreau puant', one caught alive near Piketberg; it was described which shows that it was *Ictonyx striatus* (1763:182).

In the section about the Hottentots, de la Caille mentioned the presence of some animals and birds by name (1763:292-296):

lyon, tigre, éléphant, chat-tigre, loup, chien sauvage, renard appellé 'Jacals', cerf, steinbock, rebock, cochon de terre, porc épic, lièvres (2 or 3 kinds), autruche, corhans, phaisans, perdrix, cailles, marmotes, steinbrass, bavian.

5.69 Houckgeest, 1767

There is only one small notice about a visit to the Cape of Good Hope by A.E.van Braam Houckgeest (NNBW 3:163). He wrote that he stayed at the Cape for nine months in 1760-1761. During that time, he was able to examine the curious chamelion, of which he gave a specimen in spirits to the Hollandsche Maatschappij der Wetenschappen in Haarlem (Houckgeest 1767).

5.70 Banks, visit 1771

Joseph Banks (1743-1820) only spent about a month at the Cape, from 14 March to 14 April 1771, at the end of his voyage with captain Cook on the *Endeavour*. He was accompanied by

Daniel Solander (1736-1788), but there was no artist since the death of Sydney Parkinson in January 1771. Solander was ill and this prevented Banks from travelling inland. However, Banks collected as much material as possible, or in the words of the unidentified person who continued Parkinson's journal: 'Mr Banks spared neither time nor expense in collecting of plant, insects, skins of wild beasts, and other curious animals' (Parkinson 1784:210). Banks went to see the Company's menagerie near the Fort:

'At the farther end of the garden is a vivarium or menagerie supported also at the expense of the Company where rare Beasts & Birds are kept. Here were ostriches, cassowaries, antilopes of several kinds, zebras & several other animals seldom or never seen in Europe, particularly that called by the Hottentots *Coedoe* whose beautiful spiral horns are often brought over to Europe. This animal who was as large as a horse died while we were there but not before I had had time to get a description & drawing of it. Near this enclosure is another for Birds in which the crowned pigeons of Banda (*Goura cristata*) & several more rare birds, especially of the Dutch kind of which were indeed a very fine collection. Both birds & beasts were very carefully & well taken care of' (Banks 1980:558, Beaglehole 1962:252-253).

Banks certainly described and collected a large number of plants as appears from manuscripts by Solander (Diment & Wheeler 1984:463, 467). It may be mentioned here that another companion of the voyage, Lt. John Gore (c.1730-1790) climbed Table Mountain where he saw 'several tygers and wolves' (Parkinson 1784:210, cf. Beaglehole 1968:466 note). Banks probably was not too well satisfied with his achievements, or at least he recognised that much more needed to be done, because soon after his return to England he proposed to the King that somebody should be sent to the Cape of Good Hope to collect botanical specimens. That opportunity was taken by Francis Masson (Chapter 8).

In connection with this journey by Banks, there are a number of manuscripts in the British Museum (Natural History) which have been discussed by Diment & Wheeler (1984) and by Wheeler (1986). One of those is a bound volume compiled by Daniel Solander, entitled 'Original descriptions of fishes and other animals obtained on Cook's First Voyage, with notes from the Iceland voyage' (382 pp.). It is kept in the Zoology Library of the BMNH, no. Sol Z1, and recorded as no.40 by Diment & Wheeler (1984:474). This volume contains 5 separate items, the fourth of which (no. 40d) is entitled 'Animalia Javanensia & Capensia' (pp. 300-330). The second part contains a list with descriptions of the 'Animalia Capensia' (pp.307-330). The species mentioned are recorded below. In 10 cases there is a reference to a drawing, 'Fig.Pict.'. According to Wheeler (1986:19), this abbreviation was used to indicate that a drawing had been made by one of the artists who accompanied Banks on the *Endeavour* voyage. By the time they reached the Cape, however, all those artists had died. Wheeler suggested that these drawings were the work of Brand, or an anonymous artist employed by Brand. The date of Banks' visit precludes any involvement by R.J.Gordon.

The following Cape animals were listed by Solander in this manuscript 40d, which is here referred to as 'Solander ms.' In the ten cases in which a 'Fig.pict.' is indicated, there is a corresponding drawing in a mixed collection kept in the British Museum, Print Room, no. 199*B4, which is described in detail in 8.4.3. The locality of all species listed below is given as 'Promontorium bonae Spei' unless indicated otherwise.

Solander's name	Present name
Rallus cristatus (p.307) Fig.pict.	*Scopus umbretta*
Diomedea demersa (p.308)	*Spheniscus demersus*
Scolopax leucocephala (p.309) Fig.pict.	?
Anas leucops (p.309) Fig.pict Habitat in Madagascar	*Dendrocygna viduata*
Anas maculata (p.310)	?
Anas pilearis (p.311)	?
Anas montosa (p.312)	*Tadorna cana*
Ardea palearis (p.313) Fig.pict.	*Bugeranus carunculatus*
Capra torticornis (p.315) Fig.pict.	*Taurotragus oryx*
Capra migratorius (p.316) Fig.pict.	*Antidorcas marsupialis*
Capra spiricornis (p.317) Fig.pict.	*Tragelaphus strepsiceros*
Capra rupestris (p.318) Fig.pict.	*Raphicerus campestris*
Bos equinus (p.319) Fig.pict.	*Connochaetes gnou*
Simia ursina (p.321)	*Papio ursinus*
Otis pavonius (p.322) Fig.pict.	*Ardeotis kori*
Vultur protheus (p.323) Fig.pict.	*Sagittarius serpentarius*
Capra spiricornis (p.325) – described again	See above
Viverra, (and added in pencil: 'Suricatt') (p.327)	*Suricata suricatta*

5.71 Forster, visits 1772, 1775

The two visits to the Cape made by Johann Reinhold Forster and his son George Forster, and the zoological results, are discussed in Chapter 6.

5.72 Gordon, visits 1773, 1777-1795

The material relating to the zoological explorations by Robert Jacob Gordon is treated in Chapter 7.

5.73 Ekeberg, 1773

Carl Gustaf Ekeberg (1716-1784) of Sweden studied natural history, medicine and mathematics at Åbo University (Gunn & Codd 1981:149, Forbes in Sparrman 1975:47). He was employed as ship's surgeon by the Swedish East India Co., and was interested enough in navigation to be promoted to ship's captain in 1750. Between 1742 and 1778 he made ten journeys to the east (India, China), in 1765-1767 accompanied by the young Sparrman. He brought back many specimens of plants, possibly also animals, which he gave to Linnaeus, Bergius and Retzius. Some of his contributions appeared in the *Handlingar* of the Swedish Royal Academy of Sciences, of which he became a member in 1761. He published a book about one of his journeys made in 1770, which appeared in Swedish in 1773 with a German translation of 1785. Ekeberg probably visited the Cape of Good Hope several times. In his book he described a short stay in July 1770 and mentioned some local animals. It was probably during this visit that Ekeberg discussed with the authorities the possibility of allowing a Swedish person to do research on plants and animals. This request was granted and it resulted in the journey of Anders Sparrman.

The animals mentioned in Swedish were (1773:53-56):

Harar, caniner, stengetter = klippspringare, glador, falkar, hökar, kråkor, vilda dufvor (several kinds), hackspikar, amstlar, socker-sugare, gass, ankor, smal svart orm (not identified), svarta odlor, cobra di capello, delphiner, hottentotts fisken, rothmans, hayen, opblasers, hipopothamer = sio-kor, skiälarne, pinguinerne, hummer, nautilus = porcellains-snäckar.

5.74 Masson, 1776

Francis Masson collected plants at the Cape twice, 1772-1775 and 1786-1795. His contributions are discussed in Chapter 8.

5.75 SWELLENGREBEL, VISIT 1776-1777

Hendrik Swellengrebel Jr. (1734-1803) was born in Cape Town on 26 November 1734, fifth child of Hendrik Swellengrebel (1700-1760) who was governor at the Cape from 1739-1751. Hendrik Jr. was educated in Holland and finished his law studies at the University of Utrecht in 1755. He remained in Holland on the estate Schoonoord near Doorn (biographical comments in Forbes 1965:59, Gunn & Codd 1981:339, Hallema 1932a, 1951, Schutte 1982a). Swellengrebel went to visit the Cape once, privately and not in an official capacity, from 17 February 1776 to 7 March 1777. During this period he made one long and two short expeditions into the interior. The journals of these trips and many letters about Cape affairs are still in family possession and are known as the Swellengrebel Archives. Their contents, especially the travel journals and a collection of watercolours, were made known in a series of papers published by Hallema in the 1930's. The correspondence was reproduced and edited by Schutte (1982a). Swellengrebel's interest was mainly economical and political rather than geographical or zoological. His observations on animals were incidental, but may be reviewed here.

In the Swellengrebel Archives there is a Portfolio XXXVI with 67 watercolour drawings. These were first announced and discussed by Hallema (1932a, 1951) from the private collection of Mr H.A.M.Swellengrebel. It may be assumed that these drawings as well as the manuscripts have always been in the possession of the Swellengrebel family. At present, they are kept by Mr N.J.A.C.Swellengrebel, retired sea captain in Hilversum, Holland. The watercolours are numbered 1-66, but folio 22 is duplicated by f.22a, hence the total number of drawings is 67. Most of them depict topographical scenes from South Africa, but there are a few of people and animals. Of these drawings, 56 were selected by Hallema (1951) for reproduction in monochrome (except two). It is a pity that at that time not all drawings were included, especially since he deleted most of the zoological ones. The reproductions did not include the captions or lettering, which is unfortunate, because those could have been useful in comparisons with other contemporary collections. Out of the 11 watercolours not reproduced by Hallema (1951), 8 were printed on other occasions: folios 24-29 of Caffers by Hallema (1932b), folio 66 with prehistoric rock paintings by MacFarlane (1954) and folio 22 of the rhinoceros by Rookmaaker (1985a, fig.15). Folios 20 (eland), 22a (rhinoceros) and 41 (springbok) have not been reproduced.

The artist of the watercolours is known from a signature on two folios (3 and 4) only: 'Cabo de Goede Hoop 1777 Johannes Schumacher fecit.' There is no other evidence about the identity of the artist, either on the drawings or in the available journals and letters. Schumacher was accepted as the one responsible for all watercolours (Hallema 1951, Forbes 1965, Schutte 1982a). He was also connected with drawings in the Gordon Atlas and some biographical notes about him are presented in 7.6.2. It must be noted, however, that the drawings in the Gordon Atlas and those in the Swellengrebel Collection differ in style. At least, 'the animal drawings in the Gordon Atlas are far superior to those made by Schumacher' (Nix 1974). Still, for want of contradictory evidence, we may assume that these watercolours were all made by Schumacher.

The 7 animal drawings can here be enumerated with the captions in Dutch as given by Hallema (1932a).

SP 20 'Eland', *Taurotragus oryx*, 30 October 1776, not reproduced.



Fig. 6 Springbok *(Antidorcas marsupialis)* attributed to Johannes Schumacher, in the Swellengrebel Archives (SP 41, c.1776-1777).

SP 21 'Een jacht op rhinocerossen bij de Kleine Visrivier', *Diceros bicornis*, 1 November 1776, reproduced in Hallema (1951) and Schutte (1982a:180, 181).

SP 22 'Een rhinoceros', *Diceros bicornis*, reproduced by Rookmaaker (1985a, fig. 15).

SP 22a 'Een rhinoceros', similar to folio 22, not reproduced.

SP 40 'Een bokkenjacht bij 't begin van de Camdeboo', *Antidorcas marsupialis*, reproduced by Hallema (1951) and Forbes (1965, fig. 11). It shows an enormous herd of springbok.

SP 41 'Springbokken, gesigt voor Bruintjes Hoogte', *Antidorcas marsupialis*, here reproduced, depicting 4 springbok.

SP 42 'Buffeljacht bij Kricha of Berenfley', *Syncerus caffer*, reproduced by Hallema (1951) and Forbes (1965, fig.12).

The correspondence present in the Swellengrebel Archives was edited by Schutte (1982a). Handwritten copies of some of this material are in the Cape Archives, Acc.447 (Forbes 1965:59). Many of the letters were written by Hendrik Cloete (1725-1799) who was born at the Cape and farmed at Nooitgedacht, Stellenbosch. His letters contain little of zoological interest. On 8 April 1791, Cloete wrote to Swellengrebel and included a story told by a child called Gerrit Slinger about a strange animal seen some years before (Schutte 1982a:296,420). There was a group of nine such animals, one of which was shot, found between the so-called Table Mountain and the Zeekoe River, about a month ride from the Cape. The description is interesting (in Schutte's English translation, 1982a:420): 'It had the appearance of a horse; was greyish in colour, and had small white stripes behind the jaw. Sticking out in front of its head was a horn as long as an arm and as thick as an arm at the base. In the middle the horn was flattish but the point was very sharp. It was not fixed to the bones of the forehead but was only attached to the hide of the animal. A little tuft of hair grew two fingerbreadth below the horn. The head was like that of a horse and it stood about as high as an ordinary Cape horse. The ears were grey, and like those of an ox but a little bigger. Its tail was fairly long, from a distance appeared like a horse's, but from close by was fleshier, covered all over with short hair, ending in a white tuft of the same size and shape as an apple. The hooves were round like those of a horse, but underneath they had bovine cloven hooves and the testicles were like those of a tame bull.' Naturalists always want to identify such unicorns as the gemsbok (*Oryx gazella*), but at least while dead it should have shown its two horns?

Swellengrebel travelled from 18-31 July 1776 to Saldanha

and St.Helena Bay; from 10 September to 26 December 1776 to the north-east of the colony; and from 12-29 January 1777 to Heerenlogement. The journals of the two short excursions were published by Hallema (1935a,b) from the Swellengrebel Archives. The report of the second and longer expedition was reproduced from a manuscript in the ARA (Plettenberg papers) by Molsbergen (1932:1-38) and it was compared with a somewhat more elaborate and possibly more authentic report in the Swellengrebel Archives by Hallema (1933a, b). The route of this expedition was traced by Forbes (1965:63-80).

About the intended publication of the results of Swellengrebel's journey, there was a curious series of remarks in the *Allgemeine Geographische Ephemeriden* published in Weimar in 1799. In a footnote, Heeren (1799:145-147) mentioned that he had talked to a servant who, 20 years before, accompanied Swellengrebel to the Cape. The man said that they had intended to travel from the Cape to Egypt, and that Swellengrebel had 'eine Beschreibung seiner Reise mit einer Menge Zeichnungen bereits fertig liegen, die aber nicht eher als nach seinem Tode publiciert werden sollte.' In a next issue of the same journal, there were some replies to these statements, including a summary of a letter by Swellengrebel, who stated that there was no plan to travel to Egypt, and that the results were not sufficient to be published: 'so hat auch der kurze Aufenthalt, den er daselbst gemacht hat, ihm nicht erlaubt, neue und interessante Entdeckungen zu machen, welche öffentlich bekannt gemacht zu werden verdienten' (Swellengrebel 1799:174).

1. *Excursion to St.Helena Bay*

The date given in the manuscript is 1777, which is obviously impossible because in July 1777 Swellengrebel was back in Holland (Hallema 1935a:22).

Dassenberg (33°30'S, 18°30'E), 19 July 1776: hartebeesten, struisvogels.

Uilenkraal (33°13'S, 18°24'E), 20 July 1776: bokken, korhoenen.

Saldanha Bay (c.33°10'S, 18°5'E), 22 July 1776: kropganzen, flamingos.

Patrijsberg (32°50'S, 18°3'E), 23 July 1776: steenbokken, duikers, korhoenen.

Groot Berg River (33°48'S, 18°10'E), 24 July 1776: zeekoeien, duikers, watervogels (waterbirds), visch, gemsbokken, faisanten.

Zwartland (c.33°20'S, 18°25'E), 28-30 July 1776: duykers, rietbokken.

2. *Expedition to the north-east*

Hartebeestfontijn (33°15'S, 21°7'E), 26 September 1776: Namacquas patrijzen.

Around Zwarteberg (33°10'S, 21°37'E), 28 September 1776: korhoen, Namacquas patrijsen.

Idem (33°10'S, 22°12'E), 1 October 1776: vogelstruysen, kwaggas = wilde paarden.

Idem (33°17'S, 23°12'E), 3 October 1776: quaggas, Namacquas patrijsen, faisanten, bergeenden, gansen.

Beervlei (33°5'S, 23°30'E), 5 October 1776: buffels (25-30 were seen, of which 3 were shot), Namacquas patrijsen, hazen, wagtels, eenden, gansen, hartebeesten, springbokken, een wild beest.

Kariga River (33°S, 23°30'E), 7 October 1776: springbokken (in thousands), kwaggas.

Kraai River (32°31'S, 23°56'E), 8 October 1776: springbokken, wilde beesten, kwaggas, hartebeesten.

Melk River (32°30'S, 24°45'E), 20 October 1776: springbokken, buffels, quagga (one shot), wild varken, renoster (tracks).

Bosch River (32°42'S, 25°31'E), 23 October 1776: loeries (*Tauraco corythaix*), buffels, varkens, koedoes, boschbokken (*Tragelaphus scriptus*).

Kleyne Visch River (32°44'S, 25°35'E), 25 October 1776: hartebeesten, kwaggas.

Kakouri River (32°42'S, 26°17'E), 26 October 1776: hartebeesten, springbokken, kwaggas.

Komma River (32°43'S, 26°22'E), 26 October 1776: tarentaalse hoenders.

Plaswater (32°44'S, 25°50'E), 30 October 1776: leeuwen.

Groote Visch River (32°44'S, 25°48'E), 30 October 1776: hartebeesten, springbokken, buffels, eland (see drawing SP 20).

Between Groote and Kleine Visch Rivers (32°45'S, 26°E), 1 November 1776: renoster (one shot, see drawing SP 21), springbokken, hartebeesten, kwaggas, elanden.

Kleyne Visch River (32°53'S, 26°5'E), 2 November 1776: zeekoeyen.

Bosjesmans River (33°25'S, 26°10'E), 5-6 November 1776: leeuw, kwaggas.

Zondags River (33°42'S, 25°55'E), 9 November 1776: wagtels, hartebeesten, buffels, elanden.

Algoa Bay (33°43'S, 25°51'E), 11 November 1776: buffels, elanden, visch (including:) springers.

Kraal van Capt.Ruyter (c.33°30'S, 26°10'E), 12 November 1776: hartebeesten, elanden, quaggas.

Kornoi River (33°27'S, 26°3'E), 13 November 1776: hartebeesten, springbokken, quaggas, buffels.

Auteniqualand (34°3'S, 22°11'E), 5 December 1776: olyphanten.

Gourits River (34°20'S, 21°58'E), 8 December 1776: hartebeesten, rheebokken.

Buffeljagts River (34°4'S, 20°32'E), 12 December 1776: bontebokken, rheebokken.

3. *Trip to Heerenlogement*

This trip lasting 12-29 January 1777 was discussed by Hallema (1935a).

Olifants River near Piekenierskloof (32°35'S, 19°E), 15 January 1777: patrysen, faisanten, (and much game).

Mouth of Olifants River (31°43'S, 18°12'E), 21 January 1777: watervogels (waterbirds), tonynen.

Verlorevlei (32°20'S, 18°30'E), 25 January 1777: faisanten, patrysen.

5.76 KINDERSLEY, 1777

Mrs Kindersley (1777:54) from England went to visit the company's gardens in November 1764, where a few animals were kept: 'At the end of the grand walk are iron rails, which give view into an inclosure, in which one sees several extraordinary beasts and birds; the governor has a very curious collection, and most of them natives of the country; amongst the beasts are the zebra, or wild ass, elks, tigers, leopards, wolves, &c.'

5.77 VAN PLETTENBERG, JOURNEY 1778

Joachim Annema, baron van Plettenberg (1739-1793) was governor of the Cape settlement 1771-1785. It is known that he had some interest in natural history as he reacted on the requests for material and information which came from Holland. Because the available evidence does not always allow sufficient distinction between the respective roles of van Plettenberg and Gordon, the subject of these shipments is postponed to Chapter 7. Van Plettenberg undertook one long journey to the distant districts of the colony in 1778, to investigate the problems of the farmers. He was accompanied for most of the trip by R.J.Gordon, who kept his own journal (7.7). Here the animals mentioned in the official account are documented. The manuscript was reproduced by Theal (1896) and Molsbergen

(1916,II:61-78; 1932,IV:39-62). The route was discussed by Forbes (1965:99-102, 147-148).

Traka or Vrouwen River (33°21'S, 23°7'E), 18 September 1778: struysvogels (group of 40, one shot), elanden (Molsbergen 1916:70).

Beeren Valley (33°4'S, 23°28'E), 21 September 1778: springbocken ('we saw on the way several thousands of springbokken in different groups, and we fired some shots at them. Although they could be approached to some 200 feet, only three could be killed', Molsbergen 1916:70-71).

Karee River (32°25'S, 23°50'E), 23 September 1778: gnous (a few were seen, Molsbergen 1916:71).

Cambdeboos River (32°27'S, 24°12'E), 24 September 1778: springbocken, gnous (Molsbergen 1916:72).

Plettenberg River (30°47'S, 24°47'E), 2-3 October 1778: elanden, quagas, gnous, herten, springbocken, reebocken, hasen, bosch-verkens, zeekoe (20 were shot, Molsbergen 1916:77). Van Plettenberg recalled the occasion in a letter to Swellengrebel dated 'Casteel de Goede Hoop, 1.2.1779' saying in reference to the hippos '... dat op eenen morgen meer dan 20 dier wonderbaarlijke beesten gedood zijn' ('that in one morning more than 20 of those wonderful creatures were killed'; quoted in Schutte 1982a:61).

Champagnepoorts River (31°15'S, 24°37'E), 6 October 1778: leeuwen (3 adult ones were seen, Molsbergen 1932:39).

5.78 Hop, 1778

When Coetsé returned from his expedition across the Great River (5.67), it caused excitement to people at the Cape, including governor Ryk Tulbagh. It was decided to send another party in search of longhaired Hottentots dressed in linen clothes, which Coetsé had heard about. The group was led by Hendrik Hop, captain from Stellenbosch. Other members of the party included Carel Frederik Brink to keep the journal, and Jacobus Coetsé as a guide. The expedition lasted from 16 July 1761 to 27 April 1762. The instructions were printed by Leupe (1852), Moritz (1915:165-167) and Molsbergen (1916,II:23-24). They included a zoological task (translated from Leupe 1852:376): '[From Coetsé's report] you will find that he found in the country of the Amaquas a hitherto unknown animal, of which he not only shot two, but even kept alive a young one for several days; and as these animals belong to the camels, it could well be that the natives use them as camels and therefore they could be most useful to this colony. Therefore it will be your duty, if possible, to take some of these animals or other kinds of camels alive to this place, like you should try to do with all other known animals including the large antelopes ('bokken') found in the country of the Enequas.' The journal was published in 1778 as discussed below. It was more accurately transcribed from the original document by Molsbergen (1916,II:24-50) and a German translation was made by Moritz (1915:167-180). It included records of a few animals.

Loxodonta africana, 'oliphanten' on 24 August 1761, common near the ocean north of the Olifants River.

Hippopotamus amphibius, 'zeekoeyen' on 22 September 1761 in the Great River (= Orange River).

Panthera leo, 'leeuwen' on 1 October 1761 after which the Leeuwen River was named.

Giraffa camelopardalis, 'kameleopardali' on 5 October 1761 near Warmbad (28°27'S, 18°44'E). The first giraffes were seen here; a female was killed and the accompanying calf captured. The height of the female was 17 feet. The proportions of the body would make it difficult to use for burdens. The calf died on 10 October 1761. On 16 October 1761, at Rietfontein (28°15'S, 18°34'E), Jan Batenhorst shot a male giraffe of which the dimensions were recorded (Molsbergen 1916,II:37).

While staying in the camp on the Gamma River, in S.Namibia, on 22 November 1761, they recorded a long list of animals: renosters, cameleopardalis, buffels, witte wilde paarden, ezels (the same species?), quachas, coedoes, gemsbocken, hartebeesten, auerossen – the latter were not buffaloes as Molsbergen thought, but wildebeests *(Connochaetes taurinus)*, which appears from the description (translated): 'like an ordinary ox, but larger and ashy-grey in colour having a small head and short horns, and long curly hairs on the breast and between the horns, as well as a long beard like the antelopes. It is very fast for which reason the Namaquas called in the boss ('baas').'



Fig. 7 Hippopotamus *(Hippopotamus amphibius)* published in van Engelen's Dutch translation of Buffon's description, 1775.

Coetsé and another companion, Pieter Marais, returned on 2 December from their reconnaissance of the route to the Fish River saying that the region was very dry and inhabited by many animals, especially elephants. On 6 December 1761 it was decided to return. The country of the Great Namacquas, now southern Namibia, was inhabited by: oliphanten, renosters, cameleopardalis, auerossen, buffels, wilde paarden, gestreepte ezels (note the difference from the earlier summary), coedoes, gemsbokken, hartebeesten.

The journal of Hop's journey was published in 1778 edited by J.N.S.Allamand with some assistance by J.C.Klöckner (biography in 7.10). It appeared in simultaneous French and Dutch editions, while a German translation came in 1779. The editors added a large number of footnotes about the animals mentioned by name in the journal. This, of course, is more a reflexion of Allamand's understanding at the time than a reproduction of the results of Hop's journey.

The book with the general title '*Nieuwste en beknopte Beschrijving van de Kaap der Goede Hoop*' had four parts:

1. Introduction (pp.i-iv) telling that Hop's journal was transcribed in the Cape Archives by A.Buurt and that most annotations were provided by Allamand, a few by Klöckner. Buurt probably was Adriaan Buurt (1711-1781), clergyman, who had a collection of natural history objects (Smit 1986:50) although his visit to the Cape is not recorded.
2. 'Beknopte beschrijving van de Kaap de Goede Hoop' (Brief description of the Cape of Good Hope) on pp.1-140 without zoological interest or any plates.
3. 'Dag-verhaal gehouden op een landtogt ...' (Journal kept on a land journey ...) on pp.i-iii, 1-91 with a separate title-page. In the French and Dutch editions there were 15 engravings, in the German one only two.
4. a supplement (pp.92-100) about the 'waschboom' with one plate.

It is only necessary here to document the footnotes in Part 3 above and the accompanying plates. The latter were all illustrated by Kennedy (1976,II, N23-N38) and many were later published again in a supplement to Buffon's *Histoire Naturelle* edited by Allamand (see 7.10).The following animals were treated in Hop (1778):

Loxodonta africana (p.11-12). The elephant was found at the Cape in large numbers. They would be smaller than the Asian ones, not exceeding 12 feet. The two plates were copied from Buffon (ed. Amsterdam, XI (1769), pl.1 and sup. 4 (1778), pl.55) depicting the Indian species (*Elephas maximus*).

Hippopotamus amphibius (pp.17-18). The hippopotamus was found in the Berg River. A stuffed skin was in the Cabinet of the Prince of Orange. The plate was earlier published by Buffon (1775) and Allamand (1776, XV, pl.16).

Panthera leo (p.23), rarely seen. No plate 'parce que cet animal est assez connu.'

Giraffa camelopardalis (p.25, 27). The skin of a young giraffe caught by Hop's expedition was stuffed and placed in the Cabinet of the Leiden University. Its length was 5 feet 7 inches 6 lines. The plate was engraved after this specimen, again published in Allamand (1778, pl.LVIII).

Diceros bicornis (p.37-38). The plate was copied from Buffon (ed. Paris, XI (1764), pl.7) illustrating an Indian rhinoceros which was exhibited in Paris in 1749 (Clarke 1986:64-68).

Syncerus caffer (p.39), described but not illustrated.

Equus quagga (p.41). Allamand only knew the name 'quacha' and nothing else.

Tragelaphus strepsiceros (p.42), described and illustrated after a living specimen in Holland. The plate was published again by Allamand (1778, pl.LXI).

Oryx gazella (p.43), only the name was given.

Equus zebra (p.43), a short description of the 'âne rayé du Cap'. There were three plates of a 'Zèbre femelle', 'Zèbre mâle' and one without caption depicting 2 zebras.

Connochaetes gnou (p.53) described after information received from Gordon. The plate was taken from Allamand (1776, pl.XIV) showing a specimen living in the menagerie of the Prince of Orange.

Oryx gazella (p.56-58), the 'pasan' described. The plate was also published in Allamand (1778, pl.LXII).

Hippotragus leucophaeus (p.59), the 'tzeiran' is described. The plate was also published by Allamand (1778, pl.LXIII).

Pedetes capensis (p.61), the 'grand gerbo' described after a living specimen brought by Mr Holst and placed in the menagerie of the Prince of Orange. The plate depicted this specimen, also published by Allamand (1776, pl.XV).

Phacochoerus aethiopicus (p.62-64) described from two living specimens in the menagerie of the Prince of Orange. The plate was published earlier in Allamand (1771, pl.I).

Georychus capensis (p.64), a short description of the 'taupe du Cap'. The plate was also published by Allamand (1778, pl.XXXI).

5.79 Wikar, journey 1778-1779

Hendrik Jacob Wikar (b.1752), born in Gamlakarleby, Finland, arrived at the Cape in 1773 as a soldier of the VOC. Apparently he got into debt through gambling and he deserted in April 1775. He travelled into the Cape interior, and he kept a journal for the period between September 1778 and July 1779. In the last month he was granted pardon and returned to the Cape. No later reports about his life are available (Winquist 1978:20). His journal, existing in two versions, was printed by Molsbergen (1916,II:78-138) and by Mossop (1935) while the ethnographical results were discussed by Vedder (1981:21ff.) and others. Most of the travels recorded in the journal were in the regions around the Orange River. The records of animals are here given in chronological order following the pagination in Molsbergen (1916).

10 September 1778, Koungama: hartebeest (1916:83).

15 September 1778, south bank: zeekoey (1916:84).

21 September 1778, Kalagas (28°53'S, 19°19'E): olifanten (1916:87).

22 September 1778, Kalagas: renoster (tracks), kameelpeerd (giraffe tracks; in December a group of 20 was seen in this area) (1916:88).

25 September 1778, the Bushmen wear clothes made of skins of an animal called 'noas', smaller than a jackal, grey in colour, with a straight muzzle (Molsbergen 1916:91). This maybe was *Proteles cristatus*. Wikar took one skin to Van Plettenberg, but the ears were eaten by moths.

29 September 1778, Haris (28 °33'S, 19°50'E), description of Bushmen who kill: olifant, renoster, zeekoey, buffel, slang, kameele (= giraffe), wilde peerde, hartebeeste (1916:94).

30 September 1778, Kougaas (28°30'S, 20°5'E): tarentaalse hoenders, and several unidentified animals: a lizard called 'kliphagedis' which was kept alive for 2 weeks, a yellowish snake of 3 feet length, a greyish small bird called 'Langaazem-vogel' which was heard singing, a small parrot with red feet and a bird like cuckatoes belonging to the owls (1916:95,96).

1 October 1778, Kougaas: renoster, gemzebok, eerdwolf (*Proteles cristatus*), renosters (6 seen, and hunted) (1916:96,105).

7 October 1778, Namis (29°15'S, 19°10'E): renoster (one shot, 1916:109).

18 October 1778, north bank near Hartebeest River (28°50'S, 20°40'E): buffels (1916:115).

19 October 1778, Kaslis: buffels (1916:115).

A second journey in the same regions around the Orange River lasting from April to May 1779 was described separately. On both journeys, Wikar and his companions shot 2 elephants, 2 rhinoceroses, 1 buffalo, 1 giraffe and 10 hippopotamuses (1916:129). On the second journay Wikar recorded a giraffe ('kameleopardalis') which was shot on 11 April 1779 and whose skin was preserved. The animal was 18 feet high and 9 1/4 feet long from breast to tail. He also saw a small animal, nicely red in colour, like a 'muyshond', but the tail was longer than the animal's body with a black tip (1916:134, maybe *Galerella sanguinea*, cf. Skead 1980:80). On one afternoon, Wikar saw 4 large groups of elephants which was more than he ever expected to exist. He brought some tusks to the Cape (1916:135).

On the return journey to the Cape, Wikar was met by Gordon on 25 July 1779 and Wikar showed 'myne rariteyten' (my curiosities) (1916:137, Mossop 1935:198).

5.80 Sonnerat, 1782

Pierre Sonnerat (1749-1814) made three journeys to the east. He stayed on Mauritius in 1767-1771 followed by a journey to China, the Phillipines, India etc. He was back on Mauritius in June 1772 and returned to France in 1773. From 1774 to 1781

he made a second journey to several Asian countries. Finally he sailed again in 1783 to settle in Pondicherry and he was back in France in 1803. Sonnerat visited the Cape of Good Hope at least twice. In January 1773 he met colonel Gordon and he climbed Table Mountain together with Thunberg. In 1781 he again spent some weeks at the Cape.

Sonnerat described his first journey in the *Voyage à la Nouvelle Guinée* published in 1776. This work contained a large number of descriptions of new bird species. Some of them were given obviously inaccurate localities, for instance he recorded that he saw penguins on New Guinea (Stresemann 1951:87). This did not improve his scientific reputation. The second journey was told in his *Voyage aux Indes Orientales et à la Chine* of 1782. Sonnerat only used vernacular French names in his books when he mentioned animals. The majority of these was provided with binominal names in 1786 by Giovanni Antonio Scopoli (1723-1788).

On his journeys, Sonnerat described and collected many plants and animals, especially birds. Many of his specimens went to the Cabinet du Roi in Paris, where some were studied by Buffon (Berlioz 1938:238, Farber 1982:19).

In 1774, Sonnerat published two small papers describing and illustrating birds stated to be from the Cape of Good Hope.

1. 'Le pigeon ramier gris du Cap de Bonne-Espérance' (Sonnerat 1774a:466, pl.I fig.1). This bird was abundant 'aux environs de la Perle' (= Paarl). It probably is *Columba arquatrix*.
2. 'La grande tourterelle lila du Cap de Bonne-Espérance' (Sonnerat 1774a:467, pl.I fig.2). No precise locality is given. It is *Columba guinea*. The same species was described and illustrated in Sonnerat (1782:179), see below.
3. 'Mésange du Cap de Bonne-Espérance' (Sonnerat 1774b:468, pl.II fig.1). This probably described *Parus niger*. It is again found in Sonnerat (1782:206).

In his first book of 1776, Sonnerat mentioned two more birds from the Cape:

4. 'Le Paon sauvage de l'isle de Luçon' (1776:86, pl.49) found in the Philippines but also at the Cape of Good Hope. Scopoli (1786:93,no.82) called it *Charadrius cristatus*.
5. 'Le Secretaire' (1776:87, pl.50) from the Philippines and the Cape of Good Hope. Scopoli (1786:93, no.83) called it *Otis Secretarius*. It is *Sagittarius serpentarius*.

In the *Voyage aux Indes Orientales*, Sonnerat is more circumstantial about the animals of the Cape. He presented a list of those found there (1782,II:92): caméléopards = giraffes, boucs sauteurs, zèbres, rhinocéros à deux cornes, bufles, lions, tigres, éléphans, élans, coudouks, loups, chats sauvages, petits boucs (not identified), cerfs, gazelles, hippopotames, phoques = loups marins.

Later in the book, he gave more extensive descriptions of some Cape animals. A few were illustrated on uncoloured engravings.

6. 'Le zénik des Hottentots' (1782,II:145, pl.92). Scopoli (1786:84) called it *Mus zenik* 'apud hottentotus'. It is a description of *Suricata suricatta*.
7. 'La tourterelle du Cap de Bonne-Espérance' (1782:179), not illustrated. See no.2 above.
8. 'La petite mésange du Cap de Bonne-Espérance' (1782,II:206, pl.115). Scopoli (1786:91) called it *Apterodita papuae* from China. See no.3 above.
9. 'Le grimpereau verd du Cap de Bonne-Espérance' (1782,II:208), pl.116 fig.1). Scopoli (1786:90) called it *Certhia canora* from Capite bonae spei. It is a description of *Nectarinia chalybea*.
10. 'L'Oie sauvage du Cap de Bonne-Espérance' (1782,II:220), not illustrated. This is a description of *Alopochen aegyptiacus*.
11. 'Le Canard dominique du Cap de Bonne-Espérance' (1782:221), not illustrated. Possibly a description of *Dendrocygna viduata*.

5.81 Wolf, 1782

Johann Christian Wolf (b.1730) visited the Cape on his way to Ceylon. He visited the Company's garden where he saw some animals (from Raven-Hart 1968:21): a 'wood-ass, which is striped grey and black over its whole body from the nose and tail, all the stripes being almost of the same width. I also found a large ostrich with its clumsy feet.'

5.82 Sparrman, 1783

Anders Sparrman (1748-1820) visited the Cape in 1772 and 1775-1776. He made many zoological observations discussed in Chapter 9.

5.83 Hornstedt, visit 1783

Clas Fredrik Hornstedt (1758-1809) studied at the University of Uppsala with C.P.Thunberg as one of his teachers. He was chosen to travel to the East Indies. On the way, he twice stayed at the Cape of Good Hope, 26 May – 10 June 1783 and 22 October – 22 December 1784. In the period between these visits he was in Batavia, Java from 30 July 1783 to 22 July 1784. He collected many animals and plants, but he was not able to make much use of them. After his return to Sweden in 1785, he first finished his studies in Greifswald graduating in 1786 and in 1787-1788 he replaced Sparrman as curator of the museum of the Royal Academy of Sciences (KVA) in Stockholm. He served in the Swedish navy as a medical officer in 1788-1790, taught at the Gymnasium at Linköping 1790-1797, resumed military service and in 1808 he was taken prisoner of war by the Russians. He was appointed as chief physician at the Russian hospital at Thölö, near Helsinki, Finland, where he died in May 1809 (Löwegren 1952:352, Brinck 1955:24, Winquist 1978:51, Gunn & Codd 1981:193, van Steenis 1949, 1950:242).

The results of his East Indian journey included zoological collections (whereabouts largely unknown), and two manuscripts. One was the account of his travels, published in Swedish in 1888. The second entitled 'Descriptiones Animalium' was mentioned by Brinck (1955:24) and discussed in more detail by Rookmaaker (1989). The full title of the latter manuscript is 'Descriptiones animalium praestantiorum confectae in itinere orientali, imprimis per Jawam, Sumatram et Caput Bonae Spei seu pars secunda' and it is dated 1784 (kept in Helsinki). There were 2 parts, first 130 pages of text and another with 91 engravings or drawings and 5 pages of text. All kinds of animals are described in detail, including 2 mammals, 39 birds and 68 invertebrates. Of these, 17 were stated to occur at the Cape of Good Hope:

Birds: Procellaria capensis (near Cape), *Caprimulgus africanus, Certhia chalybea, Loxia africana.*

Fishes: 3 species are figured with(vernacular) names: 'sten abborr.', 'Hottentots fisk' and 'Blennius superciliosus.'

Coleoptera: Cantharis capensis, Chrysomela 4-guttata, Coccinella bicruciata, C.flavipes, C.nivosa, Dermestes rufipes, Meloe 12-maculatus.

Hemiptera: Nepa capensis.

Orthoptera: Gryllus hottentottus, G.nasutus cornutus.

5.84 Boos, visit 1786-1788

Franz Boos (1753-1832) was sent to the Cape of Good Hope to collect plants and animals by the authorities of the Austrian

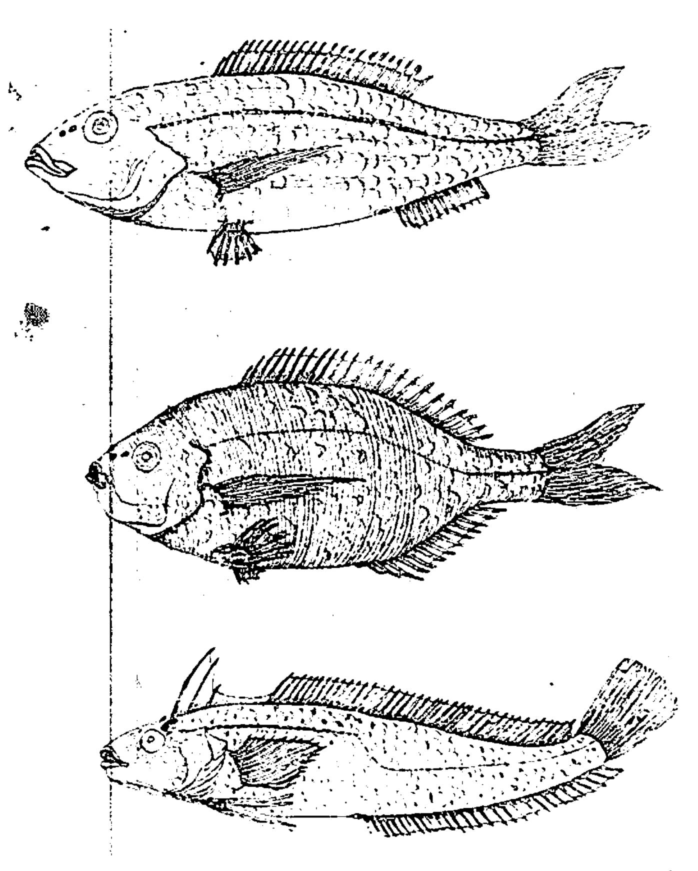


Fig. 8 Three Cape fishes, among the drawings in the manuscript *Descriptiones Animalium* by C.F. Hornstedt (c. 1784).

imperial gardens in the period of Joseph II (reigned 1765-1790). Some interesting accounts of this Cape expedition were provided by Fitzinger (1856:458-459), Kronfeld (1894), Garside (1942) and Giese (1962:83-91). Much of their information is based on a diary kept by Boos, which is not known except in a summary made by his son (Giese 1962:85, note 129). This document is in the library of the botanical garden in Vienna. A contemporary copy is in South Africa as transcribed by Reitner (1980).

Boos had travelled to the West Indies in 1783-1788 assisting Nicolaus von Jacquin. On his return to Vienna, he was almost immediately asked to lead an expedition to the Cape. His assistant was Georg Scholl, who was described as a gardener (Gunn & Codd 1981:317). The object of the journey was stated in six points by Johann Philip Graf Cobenzl, who was responsible for the gardens and menagerie of the emperor. The order included the collection of plants and seeds, as well as that of animals:

'3. Wird derselbe gleichfalls keine Sorgfalt spahren, um eine Sammlung der schönsten und merkwürdigsten Vogel zusammen zu bringen, und zwar von jeder Art, wo möglich eine gute Anzahl.

4. Wird H.Boos sich bemühen, auch seltene und merkwürdige vierfüssige Thiere zu erwerben...' (cited from Giese 1962:84).

Boos and Scholl left from Holland on 24 February 1786 and arrived at the Cape in May to go ashore on 9 June 1786. The activities of these Austrians while staying at the Cape are not known in detail. They collected large numbers of plants and animals in a very short time, some of which were shipped back home, while another part of the collection was retained. It is quite likely that they travelled in the interior, partly accompanied by Gordon or Masson. The son of Boos said that 'Mein Vater kam während seines neunmonatigen Aufenthaltes, nach Roochpand über die vierundzwanzig Flüsse, nach Zwartland und bis in die Karoofelder und zweimal nach Stellenbosch' (Reitner 1980:5). It does not appear likely that Boos went as far as Kaffraria or Namaqualand which was suggested by Garside (1942:213) and Gunn & Codd (1981:100) on the basis of the plants which Boos collected. It is quite possible that Boos bought specimens at the Cape or maybe Gordon gave him some from his garden.

Boos went to Mauritius and Réunion from 18 February 1787 to 20 January 1788 where he made another extensive collection of botanical and ethnographical specimens. Boos then left the Cape as soon as possible, on 5 February 1788, to return to Vienna on the *Pepinière*. The collection was packed in 215 larger and 15 smaller crates and 25 boxes, including 10 containing mammal and bird skins. There were also live animals for the menagerie (see Giese 1962:90-91) like 2 zebras, 11 monkeys, 2 ostriches and many small birds including some from the Cape.

When Boos left the Cape, Scholl stayed behind with the rest of the collection. For several reasons, he had difficulty in finding transport and Scholl stayed at the Cape until 1799. It is not known how he spent his time and if he added more to the collections. When he returned, he took with him a live young Javan rhinoceros (*Rhinoceros sondaicus*) which died on the way and the skin of which is preserved in the natural history museum in Vienna (Antonius 1937).

5.85 Mentzel, 1787

Otto Friedrich Mentzel (1709-1801) was at the Cape for 8 years in the service of the VOC from 1732 to 1741. Long after his return to Germany, he published a general account of the southern part of Africa. His book, now rare, appeared in 2 volumes, dated 1785 and 1787. An English translation was made available by the Van Riebeeck Society in 1944. Mentzel acknowledged that he was not a zoologist, 'it must not be expected of me to give a detailed description of the wild animals at the Cape' (1944:216). Yet, like Kolb, he included a long list of animals known in South Africa in his 12th chapter in Volume 2. They were arranged alphabetically according to the German names. In each case he added some general comments. Some species were recorded twice under different names, illustrating the confusion existing in the minds of informed lay-readers in Europe at that time. The names recorded were as follows (1787:363-411, 1944:219-246).

Affen (same as baboon), auer-ochsen, bavian (on Table Mt.), böcke (a general term), blaue bock, gefleckte oder bunte bock, graue bock, wilde bock (mentioned again later as coedoes), taucher = untertauchende bock, gemsbock (said to have horns of 6 inches length, curving sideways, hence unlikely to belong to the animal now called gemsbok), kleine steinbock, (animal without name, which described the springbok), büffel, coedoes, daszges = dachs, elend-thiere, elephanten, wilde esel (Mentzel thought it was the same as the zebra), erdschweine, giraffe = cameleopardales, grosse gerbo, gnou, haasen, hirsche, wilde hunde, jackhals, kaninchen, löwen, maulwürfe, pasan, panter-thiere (maybe the same as the tiger), wilde pferde (the same as the zebra?), quachas = quaggas, ratel, rhinoceros, seekuh = hippopotamus, wildes afrikanisches schwein, stachelschwein, steinbock = klippspringer, stinkdachs = stinkbilsen, springbock, tzairan, tyger, tyger-wolf, zebra = kapsche gestreifte wilde esel.

A few other animals are mentioned by name: strauß, flamingos,

löffelgans, peguïn, schlangen, skorpionen, eydechsen, spinnen.

5.86 THUNBERG, 1788
The Swede C.P.Thunberg stayed at the Cape in 1772-1775 and in 1778. He returned with large collections which he reviewed at Uppsala. His contributions are discussed in Chapter 10.

5.87 PATERSON, 1789
William Paterson was at the Cape in 1777-1780 to collect animals and plants. His work is presented in Chapter 11.

5.88 EUPHRASEN, 1789
B.A.Euphrasen travelled to China in 1781 in the service of the Swedish East India Co. In his spare time he collected, depicted and described various natural objects. As a result of his journey he wrote a short paper in the *Nya Handlinger* of the Royal Academy of Sciences in Stockholm. This dealt with 3 species of fishes, one of which was caught at the Cape of Good Hope: *Trichiurus caudatus*. The specimen was not preserved but a drawing was made on the spot. It was caught at the Cape; it was hardly edible. It was illustrated on a plate (Euphrasen 1789:48, pl.IX).

5.89 LEVAILLANT, 1790, 1795
The Frenchman Levaillant was at the Cape from 1780-1784. He was one of the first to study the birds and to review the subject in depth after his return. His contributions are discussed in Chapter 12.

Two further reports may be included. They were published after 1790 but referred to earlier visits.

5.90 VON WURMB, 1794
Friedrich von Wurmb wrote a letter from the Cape of Good Hope in 1775. He mentioned some animals, but did not say whether he had seen them himself (von Wurmb & von Wollzogen 1794:86):

Paviane, tiger, löwen, strauß, elephanten, rebhüner, schnepfen, fasanen, wilde enten, wilde pfauen, auerhähne, birkhäne, hasen, kaninchen, rehböcke, hirsche.

5.91 COLLINS, 1798
On his way to New South Wales, David Collins briefly visited the Cape in 1787. Here he met Masson and Gordon who helped him with plant seeds. He went to the company's menagerie, where he saw 'a vicious zebra, an eagle, a cassowary, a falcon, a crowned falcon, two of the birds called secretaries, a crane, a tiger, an hyaena, two wolves, a jackall, and a very large baboon. [These] compose the entire catalogue of its inhabitants' (Collins 1798,I:xxxiii).

PART 2

The main explorers



CHAPTER 6

The Forsters

6.1 BACKGROUND

Johann Reinhold Forster (1729-1798) was the official naturalist on the second voyage of captain James Cook, 1772-1775. Along with him went his oldest son, Johann Georg Adam Forster (1754-1794) who is commonly called George Forster. Their participation in this famous voyage of discovery has focused attention on both Forsters. They later remained active in many different fields. They only visited the Cape of Good Hope twice for relatively brief periods, 3 weeks in 1772 and 5 weeks in 1775. They had no chance to travel far into the interior. Still, they were able to accumulate a fair amount of zoological information, probably mainly by visiting the Cape menagerie and by talking to the people there. George Forster also made a large number of animal drawings presently preserved as the Forster Collection (FC) in the British Museum (Natural History), London. Much of the zoological data gathered by the Forsters was unknown in Europe, at least in detail. Father and son worked as a team, but in this case it may be said that J.R.Forster was responsible for the zoological descriptions, while George made the drawings.

Although J.R.Forster collected a good amount of material on the animals living in southern Africa, very little was published in his lifetime. Soon after his return to London in 1775, he prepared descriptions of all animals seen during the journey, the *Descriptiones Animalium* (DA). This important work was still in manuscript at the time of his death and only appeared in print in 1844 when its value had become largely historical. However, pieces of information were published in J.R.Forster's various publications which introduced some new species to the people in Europe. He named them according to the binominal system of Linnaeus stringently followed by Forster. These notes are quite scattered and will be discussed in 6.4, while the drawings are mentioned in 6.5, the zoological collections in 6.7.

In this chapter, 'Forster' only always indicates J.R.Forster, while the son is referred to in full as George Forster.

6.2 BIOGRAPHY

The life of Johann Reinhold Forster was well treated in the extensive biography by Hoare (1976).[1] Forster, born in Dirschau, now in Poland, on 22 October 1729, was trained as a reformed clergyman at the University of Halle in 1748-1751. He became pastor at Nassenhuben near Danzig in 1753, but his primary interest was the study of nature. In 1765 he undertook a survey of the lower Volga region on commission of the Russian government. The next year he went to England to seek different employment and he was able to start teaching natural history and languages at the Dissenter's Academy in Warrington. In these years between 1766 and 1772, he became known in scientific circles through several zoological publications.

In June 1772, Forster was suddenly appointed as naturalist on the second journey exploring the Pacific under captain James Cook on board the *Resolution*. He insisted that his son George should accompany him. He returned from this momentous journey laden with notes, drawings, collections and memories. The British Admiralty refused him to publish the results privately which led to a long lasting quarrel and a subsequent scattering of Forster's manuscripts and papers all over the world.

In 1780, Forster moved to Halle to become professor of natural history and mineralogy at the university. He continued to publish results of the journey and to translate accounts by other travellers. He remained there until his death on 9 December 1798. Forster was well read, he had an extensive library and he maintained a large scientific correspondence. But he was quick tempered and always in debt, partly because he had a large family. This has led to several negative assessments of his personality, for instance by Beaglehole (1969:xlii) who stated that Forster was 'dogmatic, humourless, suspicious, pretentious, contentious, censorious, demanding, rheumatic, he was a problem from every angle.' While this may be true in part, Hoare (1976) arrived at a rather kinder appraisal at least of Forster's work.

Johann Georg Adam Forster was born at Nasenhuben on 27 November 1754, the eldest son of J.R.Forster and Justina Elisabeth Forster.[2] He was a clever and fast learning child tutored by his father who had a pronounced influence on his life. Together father and son went on the Volga expedition and later to England. George also accompanied his father on the journey with Cook, certainly a life shaping experience for this young man. He had few of his father's more negative traits. After the journey, George wrote an unsanctioned account of the voyage, and although ill-advised, it was his first major work which showed his great abilities as a writer.

In 1779, George was appointed professor of natural history at the Collegium Carolinum in Kassel, Germany and in 1784 he went to Vilna, Poland in the same capacity. He wrote several books about the botanical results of the journey with Cook, as well as a large number of publications on a varied range of subjects. In October 1788 he was appointed as librarian at the University of Mainz. In 1790 he travelled through Germany, Belgium, Holland to England accompanied by Alexander von

1. Additional biographical notices about Johann Reinhold Forster include Beaglehole 1969:886, Hoare 1972a,b,c, 1982, Gordon 1975, Gunn & Codd 1981:157, Joppien & Smith 1985,II:128, Lysaght 1959:260, Sprengel 1799, Whitehead 1978b:69.

2. Additional biographical notices about George Forster include Beaglehole 1969:886, Fiedler et al. 1975, Hoare 1972c, Iredale 1925a,b, 1937, Joppien & Smith 1985,II:127, Lysaght 1959:260, Whitehead 1978b:68.

Humboldt (1769-1859). He became absorbed by political matters relating to the French government and in 1793 he was deputised to the National Convention in Paris. He became ill and died there on 10 January 1794.

6.3 VISITS TO THE CAPE OF GOOD HOPE

6.3.1 *First visit, 1772*

Forster had high expectations about his visit to the Cape. While still in London, he wrote to Thomas Pennant, on 23 June 1772: 'At the Cape we will stay, I believe two months and collect many materials, for its natural history. They will be at least more genuine than Kolbens & de la Caille's in regard to natural history.'[3] Cook's ship the *Resolution* approached the Cape on 30 October 1772. The Forsters went ashore and took up residence with Christoffel Brand (see 8.4.3). There may have been an interesting meeting between some of the zoological pioneers mentioned in this book. Masson arrived in Cape Town on board the *Resolution*, while both Thunberg and Sparrman had been there for some months. Forster decided that he could not hope to add much to their botanical expertise, focusing instead on the study of the mammals and birds (Hoare 1976:86). He also succeeded to convince Cook about the necessity of an assistant to help with the description of natural history specimens expected to be found in the course of the journey. Anders Sparrman agreed to join, 'at a salary of £50 per annum with expenses and commons paid by Forster on board' (Hoare 1976:87).

There is no entry about this visit to Cape Town in Forster's *Journal* (Hoare 1982). Forster wrote a few letters. One was directed to Linnaeus dated 19 November 1772 which informed him about the participation of Sparrman on the journey (see 6.4.1).

More insight can be gained from the letter written to Pennant from the Cape, dated 19 November 1772:

Dear Sir – We are here ever since the end of this month, it is true, but we have had very little time for anything: paying the necessary visits to the governor [Joachim van Plettenberg] & the principal people here, equipping us for the long voyage, collecting plants, birds & insects, describing the new ones, & making hère very fatiguing excursions, has taken up all my time: so that you must excuse me if I am rather short & laconic in my epistle; when providence crowns our undertakings with success, you shall have long & circumstantial accounts of every thing: in the meantime peruse the paper full of Descriptions, I send on to the royal society, with many new birds & a new animal. And as I send likewise several birds & animals in spirits & a box full of skins of birds & stuff'd ones, you'll find some amusement & supplies for y^{r} new Ornithology: but let my name not be forgotten, or be barely mentioned: I am at great expenses for the increase of knowledge, & have paid more than 30 spanish dollars for the birds, besides those I have shot, or got as a present, for which I must return some more expensive ones at my return in Europe & my pains I will not mention. ... I shall at my return find great collections ready for me & I will carry every spoil possible from the Cape. And my new friends are very sanguine in promoting my enquiries, & letting me have every object I wish for. I shall then likewise go higher up into the country, which I could not for want of time. I have found a world of new things, and especially birds. The *great mole*, is I believe rather a new genus than a mole, & if any, it is a very excentric one. My Description will convince you of it & perhaps goes my drawing of it along with the rest, but that is not yet settled.[4]

George Forster added a short postscript (his first known correspondence) including:

If you see the drawings at the Royal Society, which are now send home, you will find them hastily done, but I think I get a more ready hand at drawing. When we come back to the Cape I shall find many curious animals to draw, which I had no time to attend to now.[5]

They left the Cape on 22 November 1772.

6.3.2 *Second visit, 1775*

Returning to the Cape after exploring the Pacific, Cook, the Forsters and Sparrman again stayed with Brand (Beaglehole 1969,II:655). They remained there from 21 March to 26 April 1775. Forster worked hard, but again did not have a chance to travel inland. He went around the shops to find natural history specimens and even acquired some living animals (Hoare 1976:128-129). The evidence about these collections and the information gathered is rather scattered and will be found at various places in this chapter. Again, Forster's *Journal* stopped at the approach of the Cape: 'Here I break off my Journal at the Cape, as I intend to put my Remarks on the Cape of Good Hope all together, & will there describe the Country, Town, Government, Manners etc. & will therefore resume my Journal from our going away' (Hoare 1982:731). Sparrman, of course, stayed behind to explore the Cape region further.

6.4 PUBLICATIONS AND MANUSCRIPTS

Forster had stated his intentions to summarize the observations made at the Cape of Good Hope, but no such independent manuscript is known to exist (Hoare 1976:128, 1982:731 note). However, much can be pieced together from the writings of J.R.Forster and his son George, especially from the important *Descriptiones Animalium*. These publications and manuscripts are reviewed below as far as they are of interest to Cape zoology. Hoare (1982:99-108) discussed the limited evidence in some detail which has proved a valuable guideline for the present study.

In 1780 Forster wanted to send some descriptions to the Royal Society in London. He wrote about this to Joseph Banks on 22 March 1780:

Dr Forster's respectful compliments wait on Mr.Banks & begs leave to mention that in consequence of some hints, he took the liberty to communicate to Mr.Banks, he has considered the '*Nghoo*, or small African wild ox the fittest animal for communicating some paper to the Royal Society, on the whole tribe of the ox kind, & therefore begs Mr Banks to assist him with the drawing & sketches, he has in his possession from our performance. The Dr. has some sketches of his own, but as they want perfection, he wishes to give nothing to the public but what might be satisfactory.[6]

Banks had bought the drawings made during the journey soon after the Forster's arrival in England. In a subsequent letter of

3. Forster to Pennant, 23 June 1772. Mitchell Library, Sydney, M.L.Doc.489b. See Hoare 1976:86, 1982:100.

4. Forster to Pennant, 19 November 1772. Mitchell Library, Sydney, ML.Doc.489.

5. Forster to Pennant, see note 4.

6. Forster to Banks, 22 March 1780. National Library of Australia, Canberra, Banks Papers, NLA MS 9, f.91.

10 April 1780, Forster wrote something more about his intentions having heard that Banks was willing to assist him:

I have allready begun to alter my painting of the '*Nghoo* & shall finish it as soon as possible. I likewise intend to give a memoir on the Cape-Cat or *Tyger-Cat* & the two *Spalaces* or Cape-moles, in case you would favour me likewise with the drawings of those animals. My intention is not simply to describe the objects, but also to overhawl the whole genus to which each species belongs & to settle the species. And that you may be better able to judge my plan, I have here added the genus Aptenodyta or Pinguin, with all the new & old species, as I have ranged them, after a great deal of labour & critical examination.[7]

The papers on the tyger-cat and the gnou were finished and sent to Banks in the course of 1780.The first was read to the Royal Society on 9 November 1780 and published in the *Philosophical Transactions*. The one on the gnou was dated 16 November 1780, but it was neither read nor published (Gordon 1975:274).

Forster returned to Germany in July 1780. As shown by Hoare (1982:103-104), there continued to be plans to publish the natural history results of the journey, not all at once, but in installments. George was to write on botany, Forster on zoology. In July 1782, Forster wrote to Pennant that progress was slow due to (ever present) financial restraints, but

one plate representing the Klipspringer Antelope, is engraved & I take the liberty to add a copy of it for Yr inspection, as a specimen of the work.[8]

Some of the Forsters' zoological work is still known. The various works by both Forsters with contributions to the Cape zoology are mentioned below. Full references to the items mentioned are found in the main bibliography of this work.

6.4.1 *J.R.Forster on the Great Mole (1772)*

In Forster's letter to Thomas Pennant written from the Cape or Good Hope on 19 November 1772, quoted above (6.3.1), there is a reference to a description and drawing of the 'great mole'. These items are not now appended to the letter. However, a very similar note was included by Forster in his letter to Linnaeus also dated 19 November 1772.[9] In this place we find a description and small drawings of '*Fossor capensis*'. The coloured drawing, probably made by George Forster, shows a molerat of greyish colour without markings on the head. Below the animal there are smaller sketches of the animal's head and its foot with the nails. It should concern *Bathyergus suillus*. The Latin description of the species may be quoted here:

Fossor capensis (Mammalis novum genus).
Kolbe, des grandes Taupes. la Caille p.299 Taupes fort grosses.
Dentes primores utrimque approximati, exserti, & extra os positi. superiores II breves, truncati inferiores praelongi, recurvi, apice oblique scissi truncatique.
Laniarii 0. Molares 8 in singula maxilla.
Oculi minuti.
Pedes pentadactyli.
Corpus magnitudine Muris Marmottae vel majus, fere quadratum, ponderosum.
Caput conicum, depressiusculum, obtusum.
Oculi minuti, ut in Talpis, Auriculae vix ullae, nasus truncatus, naribus parvis. Mystacibus longis.
Os sub capite inter dentes primores reconditum, oblongum, longitudinale. Lingua ovalis, superiores rectiusculi, semipollicares, terram spectantes, apice truncati, inferiores 1½ pollicem longi, adscendentes, recurvati, spati duorum pollicum a superioribus remoti, quadrangulares, supra oblique scissi, atque in ipso apice oblique truncati. Laniarii nulli. Molares sedecim, in utraque maxilla octo, planiusculi.
Pedes breves, pentadactyli. Palmae & Plantae subtus nudae, margine setis, pectinate. Ungues palmarum longi, incurvi, exceptis duobus lateralibus, plantarum vero breves, depressiusculi, obtusi.

6.4.2 *G.Forster, A Voyage round the world (1777)*

This first account of the journey with captain Cook appeared in 1777. Fiedler (1971,no.38) gave details about its bibliography. George Forster described his visit to the Cape of Good Hope in 1772, during which he mentioned the following animals (G.Forster 1777:82-85):

elephant, rhinoceros, giraffe, hippopotamus [rare near the Cape], wild buffalo [in more remote places], gnoo [it was drawn and described; one was brought over to the menagerie of the Prince of Orange in Holland], antelopes, lions, leopards, tyger-cat, striped and spotted hyenas, jackals, hares, jerbuas, cavias . . . and 2 species of swallows.

In a long footnote, G.Forster presented an enumeration of the South African antelopes: 'The Coudoo; Cape elk; the bonte bock; the antelope which they improperly call a hart or stag; the Egyptian antelope . . . here called gems-bock or chamois; the blue antelope; the springbock; two small species, with several varieties not hitherto noticed; and the duyker or diving antelope.' Another species 'named a roebuck here' should be further studied.

In 1775, George Forster (1777,II:551) went on a trip to False Bay where he saw 'a species of partridge, which the Dutch improperly call pheasants.' Back in the town (II:553) the Forsters examined the animals in the Company's gardens and visited many furrier's shops 'in order to collect an assortment of antelopes skins.' They saw a living orang-utan (*Pongo pygmaeus*) 'from the island of Java' (II:553). This animal was sent to the menagerie of Prince Willem V in The Hague, Holland, where it died in 1777.

The German *Reise um die Welt* (1778-80) by George Forster was essentially a translation, but partially a new edition of the English version (Fiedler 1971, no.42). A second edition was dated 1784. The same information about the Cape animals is here included.

6.4.3 *J.R.Forster on the Yerbua (1778)*

Sparrman must have been instrumental in placing this paper in the *Handlingar* of the Swedish Academy of Sciences in Stockholm. It had been written in Latin, but it was published in Swedish. Forster first diagnosed the genus *Yerbua* to which he referred 8 species: '*tharsata, sibirica, capensis, meridinna, kanguru, longipes, iaculus, sagitta*' (p.112). These names were accompanied by a short diagnosis and sometimes a reference. *Allactaga sibirica* (Forster, 1778), *Dipus sagitta* (Pallas, 1773) and *Jaculus jaculus* (L.,1758) are still recognised. The circumstances leading to the description of the South African species are recalled, here quoted from the German translation published in 1783 (p.108):

7. Forster to Banks, 10 April 1780. National Library of Australia, Canberra, Banks Papers, NLA MS 9, folios 95-99.

8. Forster to Pennant, 3 July 1782 (Peabody Museum, Salem) as quoted by Hoare 1976:230, 1982:104.

9. Forster to Linnaeus, 19 November 1772, preserved in the Linnean Society, London. See Gordon 1975:186.

Als wir nach Vollendung der mühsamen Reise um die Erde, wieder an das Vorgebürge der guten hoffnung kamen, erhielten wir unter andern Thieren, welche wir da untersuchten, auch dieses zu sehn, das noch nie beschrieben ist, aber von den dasigen deutschen und holländern Berghase genannt wird. Man hatte sechs lebende im Thiergarten der Compagnie, wo ich oft mehr Stunden nach einander auf sie Acht gegeben habe, ihr Verhalten und ihre Beschaffenheit zu untersuchen. Nachdem bekam ich von herrn Gouverneur Bar.v.Plettenberg, ein Männchen zum Geschenk, welches ich lebend mit nach Europe nehmen wollte. Es starb aber unterwegens, weil man es viel Wochen nicht vermögen könnte zu fressen. Nach dem Tode untersuchte ich das Thier genauer mit meinen Sohne und Reisegesellschafter Georg Forster, der zuvor, als es noch bey völligen Kräften lebte, eine gute Zeichnung davon gemacht hatte.

There is a description and Latin diagnosis of this '*Yerbua capensis*' with 12 measurements. The paper was signed in 'Mai 1777'. The plate of '*Yerbua capensis*' shows the animal itself, with below it a view of its mouth, and beside it a figure of the genital parts. Another similar plate is discussed below, as Forster Collection no.13. This was the first scientific description with a binominal name of the springhaas, now known as *Pedetes capensis* (Forster, 1778).

6.4.4 *J.R.Forster on the Tyger-cat (1781)*

The circumstances leading to the publication of this paper were mentioned at the start of this paragraph. The account first gave a general synopsis of all known wild cats, subdivided into 3 main groups and indicated by English names only. Most of the note is a description of '*Felis capensis*'. Forster saw the animal alive at the Cape. Earlier, a skin had been seen in a furrier shop in London by Pennant (1771:181, 'Cape cat'). *Felis capensis* is now considered synonymous with *Felis serval* (Schreber, 1776). The plate which accompanied this paper is similar to Forster Collection no.5.

6.4.5 *J.R.Forster on the Gnou (1780)*

It is not known why Forster's contribution on the wildebeest (*Connochaetes gnou*) remained unpublished. It was received by the Royal Society and the manuscript is still present in their archives (Letters and Papers, Decade VII volume 67, no.172) in two parts, (1) 'Memoir on the 'Nghoo, a wild ox in the interior parts of the Cape of Good Hope, with some occasional remarks on the tribe of oxen' (21 pp.) and (2) 'Description of the 'Nghoo English and Latin' (9 pp.). No accompanying drawings or engravings are preserved.

The paper discusses 9 kinds of 'oxen' or buffaloes from several parts of the world, the last one of which was the animal which Forster called a 'Nghoo. One other kind living at the Cape of Good Hope was the Buffalo (p.10) of which Forster 'saw horns preserved in the public library at the Cape Town bespeaking an animal of a very great size.' He continues by narrating how Thunberg in the company of the 'gardener Mr Auge' once was attacked by a buffalo. Forster also saw 'a young animal of this kind, taken when just born' kept by 'Mr Hemmey, the Deputy Governor at the Cape'. [Mr Otto Luder Hemmy]. This animal was then three years old and tame enough to attempt to use it for drawing a waggon (an incident recalled by Sparrman 1977:57).

About the wildebeest, Forster (p.19) said 'When Joseph Banks, Esq., our worthy president, was at the Cape, he there saw a calf of this species and when I and my son came there the second time, we found in the Governor's Menagerie another specimen of this remarkable animal. We were informed that a male and a female were taken when quite young, after their dam had been killed, and were tamed by early domestication. They commonly are found inland 38 days journey from the Cape Town. The only individual we examined, drew, described and exactly measured, was a female and more than 3 years old. Its food in this domesticated state was coarse bread and cabbage leaves. It was lively, good natured and tame, tho' somewhat freakish.'

Forster added a separate description of the animal, both in English and in Latin, which may be given here for the sake of curiosity:

In size it comes nearest to our Asses, and is bigger than that of the Fallow Deer. Its head is in proportion to its body remarkably long; the forehead is narrow and in the sides compressed. The inferior jaw bones, towards the throat, have a gentle arcuated bend. The muzzle, seen from before, seems to be square, the nostrils are lunated, and the whole muzzle set with several strong, divergent white bristles. Both lips are of equal length; the eight cutting-teeth are so as in all the oxtribe, only in the lower jaw invertedly wedge-shaped and obliquely truncated on top. The eyes stand high on the sides of the head, are large soothy and fierce, the eyelashes brown and some strong, diverging arcuated bristles are seen above and below the eyes. The ears open, brown and much shaped in the manner of our tame oxes. The horns are black, round, tapering, divaricated, first bending forwards down, than in the middle arcuated, lastly rising and terminating in sharp points. The neck flat and sharp above and below, and running partly straight. Under the throat, towards the breast, there is a dewlap to be seen, as in our domestic cattle. The trunck is bellying out. Above the free fat the shoulders are gently rising, the back is pretty straight. The shoulderblades musculous, the thighs lean, the feet slender. The hoofs pointed, on the sides roundish, jetty black. The spurious claws small. Along the loins runs a sharp elevated ridge. The tail is compressed at the base, tapering and set on both sides, with hairs.

The hair is everywhere uniformly of a pale brown colour, approaching to that of a stag. The whole forehead, from the eyes to the beginning of the muzzle is covered with long, black, erect, bristly hairs, between the horns there are some curled hair. The whole neck to the tip of the shoulders has a mane of erect, thick brown hair. From the chin to the throat they are stronger. From the throat to the breast are likewise long bristly hairs, reaching about the middle of that space down to the very knees. On the breast between the legs are likewise blackish hair. On the navel grow long black bristles. The tail is on each side pinnated with long pale brown hair, reaching down to the bending of the hind legs.

Forster finished with a list of 17 external measurements, including the length from the ears to the basis of the tail 58 inches, the tail 28 inches and the shoulder height 40¼ inches.

6.4.6 *Additions to Buffon's Histoire Naturelle (1782)*

Buffon published 14 edited contributions on mammals by Forster. These notes all appeared in Supplement 6 of the Paris edition of Buffon's *Histoire Naturelle* of 1782. They were attributed to 'M.Forster' (singular), 'Mrs Forster' (plural) or once to 'Mrs Forster père et fils.' One wonders how and when Buffon received these contributions. George Forster was in Paris at the end of 1777 and met Buffon. According to Forster's letter to Pennant of July 1782, he was still trying to finish his descriptions. It would appear that they could not have been ready as early as 1777. No additional evidence has been found. The Forsters stayed in contact with Buffon, and we must assume that the manuscripts were communicated to him sometime in the early 1780's.

The bibliography and contents of the 14 additions by Forster



Fig. 9 Springhare *(Pedetes capensis)* in Buffon's *Histoire Naturelle* (supplément 6, pl. XLI, 1782), probably after an original supplied by George Forster (see 6.5.3).

were discussed by Rookmaaker (1985b). There were 11 notes about South African mammals, as follows (references to Buffon 1782):

1782:91-93 'Gnou' (*Connochaetes gnou*). Forster saw and described a female in the Cape Menagerie in 1775.
1782:122-123 'Canna' (*Taurotragus oryx*). Forster described a female seen in the Cape Menagerie in 1772.
1782:125-126 'Condoma ou Coësdous' (*Tragelaphus strepsiceros*). Forster had not seen the species but described it from other sources.
1782:134-135 'Bubale' (*Alcelaphus buselaphus*) with a short description.
1782:144-147 'Brébis d'Afrique' on fat-tailed sheep at the Cape.
1782:156 'Gazelle-pasan' (*Oryx gazella*) describing its horns.
1782:174-175 'Grimme' (*Sylvicapra grimmia*) with a short description.
1782:177-179, pl.XXI 'Gazelle ou Chèvre sautante du Cap de Bonne-Espérance' (*Antidorcas marsupialis*). Forster described the animals, said to live in the interior, sometimes in troups of 10,000 or 15,000 together. The plate is similar in composition to drawings by George Forster.
1782:183, pl.XXII 'Klipspringer ou sauteur des rochers' (*Oreotragus oreotragus*) describing the animal.
1782:185-186, 'Steenbock, Grysbock, Bleekbock' (*Raphicerus* sp.). The three kinds were differentiated by colour.
1782:260-261, pl.XLI 'Grande gerboise' (*Pedetes capensis*) with a description and a plate similar to others attributed to George Forster.

6.4.7 *J.R.Forster's annotations in translations*

Both Forster and his son translated many contemporary travel accounts and other works into German. Many of those relating to South Africa are discussed in appropriate places in the following chapters of this book. In general, J.R.Forster faithfully translated the original texts. Sometimes, however, he added information either in a footnote or in the text within brackets. Often this was limited to the addition of binominal names where the original author had not used one. It is not easy to extract these annotations and they add only little to what is known about Forster's zoological interest mainly taken from his *Descriptiones Animalium*. Because that larger work remained in manuscript during Forster's lifetime, the notes in his translations were then the only published record about his work and they even contain some new scientific names currently recognised.

The majority of the translations of travel accounts appeared in a series initially edited by J.R.Forster with the long title *Magazin von merkwürdigen neuen Reisebeschreibungen aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet*. While Forster lived, 16 volumes appeared published by Voss in Berlin (listed in detail by Hoare 1976:361-370). There was also another edition published by F.A.Schrämbe in Vienna – smaller in size, with different pagination and different dates. Iredale (1937) commented on some of Forster's annotations concerning new names of Australian birds.

As far as the Cape of Good Hope was concerned, Forster translated books by Paterson, Thunberg and Levaillant. Paterson's *Narrative* (1789) was translated as *Reisen in das Land der Hottentotten*(Berlin, 1790) outside the *Magazin* (Hoare 1976:361, no.70). The introduction was dated 'halle, den 5ten Sept. 1789' showing how fast Forster must have worked. An abridged version of Thunberg's *Resa* (1788) translated by Sprengel appeared as *Magazin* volume 7 (1792). Forster only included a few zoological remarks in the first part of the book. It is interesting that Forster was aware of Gordon's expeditions: 'Doch die Reise, die der jetzige Oberst Gordon gemacht hat, ist gewiß eine der wichtigsten, und seine darauf gesammelten Bemerkungen verdienten daher in mehr als einer Rücksicht gedruckt zu werden' (Forster 1792:111).

Forster also translated the first and second voyage by Levaillant in a somewhat abridged version. The first *Voyage* (1790) appeared in *Magazin* volume 2 (1790), the *Second Voyage* (1795) in the *Magazin* volumes 12 and 13 (1796). These included many notes which gave scientific names to the animals identified by French names only in the original (12.14.3). There was also a translation separately published of the first part (18 plates) of Levaillant's *Histoire Naturelle des Oiseaux d'Afrique* (12.4.5).

6.4.8 *J.R.Forster's Descriptiones Animalium*

The most important zoological work with full results of the activity of Forster on Cook's second voyage was to be the *Descriptiones Animalium* (DA). Some background on the history of this manuscript was given by Whitehead (1978a:26-27) and Hoare (1976:229-230, 1982:89-94). The work was finished in outline as early as August 1775, only 3 weeks after return from the voyage. However, Forster continued to work on the manuscript while in London until 1780. It was in fact ready for publication 'but feuds and debts again intervened' (Hoare 1982:90). In 1787, the Göttingen publisher J.C.Dietrich was willing to publish it and a manuscript of 458 pages was available. Forster wanted engravings to accompany the Latin text, Dietrich wanted a German text. No compromise could be reached. The manuscript later passed to the Royal Library in Berlin in 1799 and after the last war it was deposited in the Staatsbibliothek Preussischer Kulturbesitz, Dahlem, Berlin (MS Lat.qu.133-136).

The manuscript DA was published as late as 1844 edited by Martin Hinrich Karl Lichtenstein (1780-1857), curator since 1813 of the zoological museum in Berlin. Although it was 'stümperhaft kommentiert' (Stresemann 1951:78), the publication was an important event because it allows an evaluation of Forster's zoological work on Cook's voyage. In 1844, however, the DA had become a document of historical importance rather than of scientific value. Had Forster published it around 1780, many animals would now carry names which he proposed in the DA.

The order of presentation in the DA is largely chronological. Hence Cape animals are found in two places. It is not merely a record of observations made during the journey. Forster added information from other sources, and in case of the antelopes he gave an enumeration of all species in the genus, not only those seen in South Africa. I here list the names in the DA in the order in which they appeared with an attempt for modern identification. All names were accompanied by a description in Latin. 'Fig.pict...' refers to drawings, discussed in 6.5.

a. *Visit of 1772 (Forster 1844: 30-55).*

The records concerning Forster's first visit to the Cape of Good Hope include descriptions of 15 mammals and 25 birds.



Fig. 10 Springhare *(Pedetes capensis)* by George Forster, in the Forschungsbibliothek Gotha (FG 2).

Forster 1844	Present name
26. *Talpa asiatica* (p.30), Fig.pict.G. A specimen in spirits was sent to the Royal Society.	*Chrysochloris asiatica*
27. *Fossor* (genus)	–
28. *Fossor capensis* (p.32), Fig.picta G.	*Bathyergus suillus*
29. *Antelope* (genus)	–
30. *A. oryx* (p.33)	*Taurotragus oryx*
31. *A. pygargus* (p.34), Fig.picta F.	*Antidorcas marsupialis*
32. *A. tragulus* (p.36), Fig.picta F.	*Raphicerus campestris*
33. *A. strepsiceros* (p.36)	*Tragelaphus strepsiceros*
34. *Viverra tetradactyla* (p.37), Fig.picta G.	*Suricata suricatta*
35. *Viverra putorius*, ß varietas *capensis* (p.38)	*Ictonyx striatus*
36. *Viverra genetta* (p.38)	*Genetta genetta*
37. *Viverra ichneumon* (p.38)	*Herpestes ichneumon*
38. *Sciurus palmarum* var. ß (p.39)	*Xerus inauris*
9. [= 39.] *Hyaena maculata* (p.39) from skins	*Crocuta crocuta*
10. [= 40.] *Sus Aethiopicus* (p.39)	*Phacochoerus aethiopicus*
41. *Equus zebra* (p.40)	*Equus zebra*
42. *Bos Poëphagus* (p.40), Fig.pict. One specimen died on the way to Holland	*Connochaetes gnou*
43. *Lanius frontalis* (p.44), a dried skin sent to the Royal Society	?
44. *Corvus morio* (p.42), specimen sent to the Royal Society	*Neophron percnopterus*
45. *Corvus cafer* (p.42)	*Corvus albicollis*
46. *Cuculus persa* (p.42)	*Tauraco corythaix*
47. *Picus capensis* (p.43)	*Mesopicos griseocephalus*
48. *Upupa promerops* (p.43)	*Promerops cafer*
49. *Anas gambensis* var. ß (p.44) 'berg-gans'	?
50. *Anas montana* (p.44), Fig.picta Schumacher	*Tadorna cana*
51. *Anas xanthorhyncha* (p.45)	*Anas undulata*
52. *Anas pyrrhorhyncha* (p.45)	*Anas erythrorhyncha*
53. *Anas assimilis* (p.46), Fig.picta G.	*Anas capensis*
54. *Larus littoreus* (p.47)	*Larus dominicanus*
55. *Ardea palearis* (p.47), Fig.picta Schum.	*Bugeranus carunculatus*
56. *Ardea fusca* (p.47)	*Scopus umbretta*
57. *Tantalus capensis* (p.47)	*Geronticus calvus*
58. *Scolopax caffra* (p.48), Fig.picta G, 4 specimens sent to Royal Society	*Calidris ferruginea*
59. *Fulica porphyrio* (p.49), Fig.picta G.	*Porphyrio porphyrio*
60. *Rallus caffer* (p.50), Fig.picta G.	*Rallus caerulescens*
61. *Otis afra* (p.51), Fig.picta G.	*Eupodotis afra*
62. *Columba sylvestris* (p.52)	*Columba guinea*
63. *Turdus mimus* (p.53)	*Oenanthe pileata*
64. *Loxia oryx* (p.53), Fig.picta G.	*Euplectes orix*
65. *Emberiza caffra* (p.53)	?
66. *Hirundo capensis* (p.54)	*Hirundo cucullata*
67. *Hirundo hyemalis* (p.55)	?

b. Visit of 1775 (Forster 1844: 362-407).
This part of the work included a review of the genus *Antelope* (thus spelled by Forster) describing 18 species and some varieties. At the Cape of Good Hope Forster said to have seen 11 species: 6 alive, 3 skins and 2 horns. The names sometimes differ from those in the first section (above) showing that the manuscript was not quite ready as it was left. Forster's nos. 273, 274a, 275, 280, 284, 285, 287, are species absent from South Africa.

Forster 1844	Present name
267. *Felis capensis* (p.362), Fig.pict.G.	*Felis serval*
268. *Fossor leucops* (p.364), Fig.pict.G.	*Georychus capensis*
270. *Yerbua capensis* (p.365), Fig.pict.G.	*Pedetes capensis*
271. Genus *Antelope*	
272. *A. Tragulus* (p.374), 3 varieties	
α. *melanotis*, grysbok (p.375), not 'melanotidis' which is a genitive	*Raphicerus melanotis*
β. *rupestris*, steenbok (p.376)	*Raphicerus campestris*
γ. *pallida*, bleekbok (p.376)	*Raphicerus campestris*
274. *A.strepsiceros* (p.377) described from skins and horns	*Tragelaphus strepsiceros*
276. *A.oryx* (p.379) from female seen in Cape menagerie	*Taurotragus oryx*
277. *A.bubalis* (p.380)	*Alcelaphus buselaphus*
278. *A.gazella* (p.380). Forster was given a specimen by Van Plettenberg (p.382)	*Oryx gazella*
279. *A.oreotragus* (p.382)	*Oreotragus oreotragus*
281. *A.grimmia* (p.385), not seen	*Sylvicapra grimmia*
282. *A.leucophaea* (p.386)	*Tragelaphus scriptus*
283. *A.dorcas* (p.386)	*Damaliscus dorcas*
– *A.dorcas*, var.pygargus (p.388), Fig.pict.G. One taken to England	*Antidorcas marsupialis*
286. *A.glauca* (p.391)	*Hippotragus leucophaeus*
– To these 10 South African antilopes should possibly be added the 'rehbock' (now *Pelea capreolus*), but Forster was uncertain.	
288. *Bos connochaetes* (p.392), Fig.pict.G.	*Connochaetes gnou*
289. *Falco serpentarius* (p.396), Fig.pict.G.	*Sagittarius serpentarius*
290. *Lanius cafer* (p.398), Fig.picta G.	*Laniarius ferrugineus*
– No.291 is not South African.	
292. *Anas gambensis* (p.400), Fig.pict.G.	?
293. *Rallus aethiops* (p.400), Fig.pict.G.	*Amaurornis flavirostris*
294. *Tetrao capensis* (p.400), Fig.pict.G.	*Francolinus capensis*
295. *Turdus phoenicurus* (p.404), Fig.pict.G.	*Cossypha caffra*
296. *Turdus sordidulus* (p.404), Fig.pict.G.	*Cercomela familiaris*
297. *Fringilla bicincta* (p.405), Fig.pict.G.	*Emberiza capensis*
298. *Muscicapa dubia* (p.406), Fig.pict.G.	*Sphenoeacus afer*
299. *Squalus striatus* (p.407), Fig.pict.G.	*Scyliorhinus africanus*
300. *Blennius capensis* (p.407), Fig.pict.G.	*Clinus superciliosus*

6.5 ZOOLOGICAL DRAWINGS AND PLATES

George Forster was the official natural history artist of Cook's second voyage. He made a large number of sketches and finished drawings representing both plants and animals. Much of this has already been discussed in the literature, following the general review of Beaglehole (1969:clxii-clxiv). He mentioned two sets which only contain botanical drawings preserved in the BMNH and in Leningrad. Zoological drawings are included in 4 collections:

1. British Museum (Natural History), London (FC): 2 volumes with 271 drawings, see 6.5.1.
2. Forschungsbibliothek, Gotha (FG): 26 gouaches copied

from drawings in the BMNH set, see 6.5.2.

3. Schlossmuseum, Weimar: 6 drawings of birds, none from South Africa, listed by Whitehead (1978a:46).

4. Universitätsbibliothek, Jena: 2 drawings of penguins, not South African, listed by Whitehead (1978a:46).

There are another three collections of natural history drawings connected with Cook's second voyage (Beaglehole 1969:clxiv), in the British Museum, London (17 drawings), in the Royal Scottish Museum, Edinburgh (38 drawings) and in the Mitchell Library, Sydney (53 drawings, all birds). The drawings in the latter collection were attributed to George Forster by Jose (1925) and Iredale (1925a), but probably those drawings were made by another, anonymous artist (Lysaght 1959:317-322, all drawings listed). The birds depicted are all from the Pacific region except an immature albatros (*Diomedea exulans*) seen on 24 October 1772 near the Cape of Good Hope shown on folio 43.

J.R.Forster is not known as an artist. However, he made a few very simple sketches, none depicting animals, some of which were illustrated by Joppien & Smith (1985, vol.2). Two 18th century catalogues listing zoological drawings by George Forster are described in 6.6.

6.5.1 *The Forster Collection (FC)*

This collection in the BMNH was described by Lysaght (1959), Whitehead (1978a) and Hoare (1982:77 ff.), whose information on the background and contents only needs to be summarized. Forster, always in debt, sold his drawings depicting plants and animals to Banks for 400 guineas in August 1776.[10] As part of the Banksian collection they went to the British Museum in 1827 and in 1881 they were transferred to the BMNH together with other natural history drawings. The 2 volumes of zoological drawings contain 271 drawings sometimes on folios numbered a and b: 33 mammals (nos.1-31), 140 birds (nos.32-168), 3 reptiles (nos.169-171), 81 fishes (nos.172-251) and 14 invertebrates (nos.252-261) according to Whitehead (1978a:27). Most drawings can be attributed to George Forster, but a few may have been made by others. In the *Descriptiones Animalium*, the existence of a drawing depicting a particular species is indicated by the general formula 'Fig.picta G.' or 'Fig.pict.G' if it was made by George. A few other artists are indicated in the DA: 'Fig.pict.F' in 7 cases for J.R.Forster; 'Fig.picta Schumacher' in 2 cases for Johannes Schumacher, the artist known to have worked for Swellengrebel and Gordon (see 7.6.2); and 'Fig.pict.Hodges' in 1 case for William Hodges (1744-1797), the official artist on the *Resolution* to draw landscapes and people (Whitehead 1978a:29-30).

Many drawings were not finished, as counted by Whitehead (1978a:28): 'Only 155 of the drawings can be considered complete, 36 have some colour added (often little more than an indication), but 80 are mere pencil sketches (occasionally with ink or brown crayon as well).' It has been suggested that George Forster received some instruction or assistance in drawing the backgrounds from William Hodges. Many drawings are annotated. The Forsters probably were responsible for the names written in pencil below the subject, if such a name was available. It is unlikely that they had a chance to revise these after the collection passed to Banks in 1776. There are several other annotations which might be attributable to Solander[11] or Dryander[12] or possibly others working in the library of Banks (Whitehead 1978a:28).

The zoological drawings in the Forster Collection were all listed with reproduction of the annotations found on them by Whitehead (1978a), except the birds which were treated in a similar way by Sharpe (1906:179-199) and Lysaght (1959:280-310). Below I shall only give some details about the drawings depicting animals found at the Cape of Good Hope. Each entry starts with the original folio number preceded by FC (= Forster Collection) followed by the current scientific name. The original annotations are not repeated as they can be easily found in the publications mentioned above. Only the names probably provided by the Forsters are given, in brackets and not italicised to avoid confusion.

Mammals (folios 1-31)

FC 5	*Felis serval* ('Felis capensis')
FC 6	*Felis serval*: 2 pencil sketches, one of the animal sitting (only the head finished), the other showing leg and ear. The same species is illustrated in Miller (1782) and Forster (1781).
FC 8	*Chrysochloris asiatica* ('Talpa versicolor')
FC 9	*Georychus capensis* ('Fossor leucops')
FC 10	*Bathyergus suillus* ('Fossor capensis')
FC 11	*Bathyergus suillus*.
FC 12	*Bathyergus suillus*: several pencil sketches of head and feet.
FC 13	*Pedetes capensis* ('Yerbua capensis') reproduced by Hoare (1982,IV, fig.46).
FC 15	*Giraffa camelopardalis* ('Cervus camelopardalis'): pencil sketch copied from a painting owned by Van Plettenberg in Cape Town: 'Hanc figuram factam ad amussim apud Generos. Baron de Plettenberg, Gub.Capens. emendavi in respectu ex capite exsiccato.'
FC 16	idem: pencil sketch of head only.
FC 17	*Raphicerus melanotis* ('Antelope Tragulus α melanotis').
FC 18a	*Antidorcas marsupialis* ('Antelope pygarga')
FC 18b	idem: 2 animals, one in background with head turned away.
FC 19	*Connochaetes gnou* ('Bos connochaetes'): small watercolour.
FC 19a	idem: male 'from a drawing in the possession of the governor at the Cape' in pencil.
FC 20	idem: female, in pencil.
FC 21	idem: inkdrawing, similar to FC 20.
FC 22	idem: in pencil, similar to FC 20.
FC 23	idem: in pencil, animal recumbent.
FC 24	idem: in pencil, 2 animals, one recumbent, the other standing
FC 25	idem: in pencil, 2 animals as FC 24.
FC 26	idem: in pencil, unfinished, only hind leg visible.
FC 27	idem: in pencil, head only.
FC 28	idem: in pencil, head only, different from FC 27

10. Forster to Banks, 9 August 1776, see Dawson 1958:339, Carter 1988:134.

11. Daniel Carlsson Solander (1736-1782), from Sweden, arrived in England in 1760 and never returned home. He had assisted Linnaeus in the preparation of some books and was a welcome asset in London. In 1763 he was appointed as Librarian in the British Museum. He also participated in the *Endeavour* journey with captain Cook and Joseph Banks, 1768-1771. (Biography see, e.g. Stearn 1981:18-20).

12. Jonas Dryander (1748-1810) graduated from the University of Uppsala, Sweden, and came to England in July 1777. Here his botanical qualities were soon noticed by Joseph Banks, and from some time in 1778 until his death he worked in Banks' house as botanical curator and librarian. (For his biography, see e.g. Carter 1988:159 et passim.)

FC 29 *Oreotragus oreotragus* ('Antelope oreotragus') 'from a dead animal'
FC 30 *Taurotragus oryx* ('Antelope oryx') illustrated by Hoare (1982,IV, fig.45).

Birds (folios 32-168)
FC 32 *Sagittarius serpentarius* ('Falco sagittarius')
FC 41 *Laniarius ferrugineus* ('Lanius cafer')
FC 69 *Tadorna cana* ('Anas montana') in pencil. In the DA the drawing is attributed to Schumacher under date 1772.
FC 70 idem: unfinished watercolour
FC 72 *Anas undulata* ('Anas xanthorhyncha'): unfinished watercolour.
FC 73 *Anas erythrorhyncha* ('Anas pyrrhorhyncha')
FC 75 *Anas capensis* ('Anas assimilis')
FC 76 *Dendrocygna viduata* ('Anas viduata'): unfinished watercolour
FC 96 *Daption capense* ('Procellaria capensis'), caught on 12 October 1772.
FC 112 *Ardea cinerea* ('Ardea cocoi') dated '1773' but said to have been drawn in the Cape menagerie. Probably a juvenile of this species (Lysaght 1959:299).
FC 113 *Ardea cinerea* ('Ardea cocoi'): pencil sketch, in Cape menagerie.
FC 115 *Bugeranus carunculatus* ('Ardea palearis') with a scale of 'one foot'. Signed by George Forster and dated '1773' but in the DA attributed to Schumacher, which might be explained by assuming that George finished it after leaving the Cape (Whitehead 1978a:30).
FC 116 *Geronticus calvus* ('Tantalus cafer') dated '1773' and signed by George Forster.
FC 118 *Calidris ferruginea* ('Scolopax caffra').
FC 129 *Rallus caerulescens* ('Rallus cafer') seen in the Cape menagerie. This drawing was the basis of the first description of this species by Latham (1785:234, 'blue necked rail').
FC 132 *Amaurornis flavirostris* ('Rallus aethiops')
FC 133 *Eupodotis afra* ('Otis afra')
FC 134 idem: unfinished drawing of 2 birds
FC 135 *Francolinus capensis* ('Tetrao capensis')
FC 147a *Cossypha caffra* ('Turdus phoenicurus')
FC 147b *Cercomela familiaris* ('Turdus sordidulus')
FC 152 *Euplectes orix* ('Emberiza orix') signed by G.Forster '1773'.
FC 154a *Emberiza capensis* ('Fringilla bicincta')
FC 154b *Sphenoeacus afer* ('Muscicapa dubia')

Fishes (folios 172-251)
FC 187 *Clinus superciliosus* ('Blennius capensis'), see Wheeler 1981:795
FC 224 *Pomatomus saltator* ('Scomber capensis'), see Wheeler 1981:790.
FC 249 *Scyliorhinus africanus* ('Squalus striatus'), see Wheeler 1981:786.

6.5.2 *The drawings in Gotha*

After his return to England, Forster tried hard to please king George III. On the suggestion of Daines Barrington (1727-1800), FRS, he engaged an artist to prepare a set of presentation drawings. When about 30 of them were done, the King refused even to see them (G.Forster 1778:7). Forster's various attempts to sell them to recoup the expenditure, and other historical and arthistorical aspects of this collection, were well told by Steiner & Baège (1971) and Joppien (1976). In 1781, the drawings finally were bought, for 80 Luisd'or in gold, by Herzog Ernst II von Sachsen-Gotha und Altenburg. Since that time the collection remained in the same place, now the Forschungsbibliothek Gotha (Codex Gothanus Membranatius I 131). In 1936, two drawings were removed, but they turned up again for sale in 1976 as shown by Joppien (1976). There is a total of 32 drawings, gouache, 26 on parchment, 6 on paper. The 28 drawings depicting animals were enumerated by Whitehead (1978a:46), the bird drawings (nos.4-22) were discussed and illustrated by Steiner & Baege (1971). The identity of the artist who copied George Forster's drawings as nicely as this on gouache is not known;but the possible involvement of Gertrude Metz, William Hodges and George Forster has been stated without certainty (Steiner & Baege 1971:64, Joppien 1976:10). Among these drawings there are 5 showing South African animals (2 mammals, 3 birds) which may be mentioned here. The original numbers are given preceded by FG (= Forster drawings, Gotha) followed by the current scientific name.[13]



Fig. 11 Wattled crane *(Bugeranus carunculatus)* in the Forster Collection (FC 115), British Museum (Natural History).

FG 1 *Antidorcas marsupialis*. 'George Forster, ad vivum del.' (below left) and 'Gazelle du Cap de Bonne Espérance' (below middle). It shows two springbok similar to FC 18a and the engraving in Buffon (1782,pl.XXI). The front specimen is depicted in side-view, the one in the background is seen from behind with the head turned away.[14]

13. Notes on these drawings were prepared after monochrome photographs kindly supplied by the Forschungsbibliothek, Gotha.

14. There is a different illustration in Fiedler et al. (1975:13, fig.4) stated to be 'Grosser Kudu, eine Grossantilope. Kapland im November 1772. Gouache nach einer Zeichnung von G.Forster'; in the picture credits (p.92) said to be from the Forschungsbibliothek, Gotha. This drawing of *Tragelaphus strepsiceros* clearly differs from FG 1. There were said to be only two mammal drawings in this series, hence there must be some confusion.

FG 2 *Pedetes capensis*. 'George Forster, ad vivum del.' (below left) and 'Yerbua capensis F., Mus cafer Pallas, Grande gerboise du Cap.' The drawing is similar to FC 13 and the published engravings of this species. The animal looks left and behind it there is a small second specimen resting on its 4 feet.

FG 12 *Calidris ferruginea*. 'George Forster ad vivum del.' (below left) and 'Bécasse du Cap de Bonne Espérance' (middle). The bird is shown in side-view looking left. It is similar to FC 118. Illustrated in Steiner & Baege (1971, pl.9).

FG 13 *Rallus caerulescens*. 'George Forster ad vivum del.' (below left) and 'Râle du Cap de Bonne Espérance' (middle). The bird is shown in side-view looking left, similar to FC 129. Illustrated in Steiner & Baege (1971, pl.10).

FG 15 *Geronticus calvus*. 'George Forster ad vivum delin.' (below left) and 'Ibis du Cap de Bonne Espérance'. The bird is shown in side-view, left leg lifted, looking left, similar to FC 116. Illustrated in Steiner & Baege (1971, pl.12).

6.5.3 *Published engravings*

A few of George Forster's drawings were engraved and later published. They can be enumerated here for ease of reference.

1. Forster (1778, pl.III) illustrating the paper on *Yerbua capensis* (= *Pedetes capensis*). There are 3 figures: a side-view, a view of the mouth and one of the anal region. The side-view is similar to FC 13 in reverse.
2. Forster (1781, pl.I), a recumbent serval (*Felis serval*) engraved by Basire.
3. Buffon (1782, pl.XXI) 'La gazelle ou chèvre sautante du Cap' (De Sève del., C.Baron sculp.). The engraving is similar to George's various drawings of the springbok (*Antidorcas marsupialis*).
4. Buffon (1782, pl.XXII) 'Le Klippspringer ou le Sauteur des Rochers' (De Sève del., L.Legrand sculp.) accompanying Forster's remarks on *Oreotragus oreotragus*. Buffon mentioned that 'M[rs] Forster ont bien voulu me donner le dessin & que j'ai fait graver' (see Rookmaaker 1985b:207, fig.1). The animal resembles that of FC 29 in reverse.
5. Buffon (1782, pl.XLI) 'La grande gerboise ou Lièvre sauteur du Cap' (De Sève del., Le Villain sc.), accompanying Forster's remarks on the grande gerboise (*Pedetes capensis*). Buffon attributed the drawing to 'M.Forster' who 'nous a communique un dessin ... que nous donnons ici' (see Rookmaaker 1985b:210, fig.2). The engraving is similar, but not identical, to that published in 1778 or FC 13 in reverse.
6. Sparrman (1784b, pl.XIV). In the German translation of Sparrman's

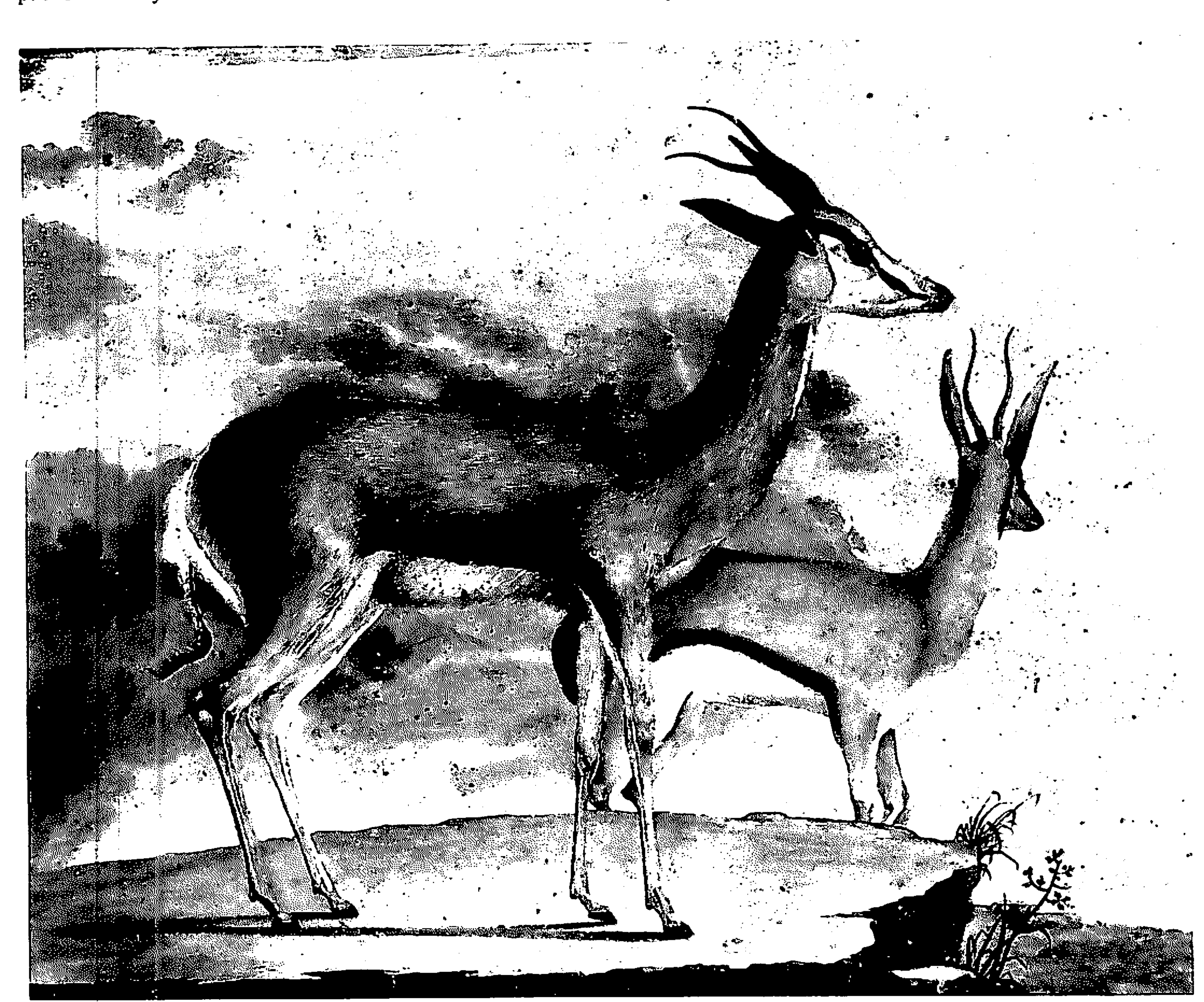


Fig. 12 Springbok *(Antidorcas marsupialis)* by George Forster, in the Forschungsbibliothek Gotha (FG 1).

travel account, published with an introduction by George Forster, there is an engraving of a hippopotamus (*Hippopotamus amphibius*) 'nach einer von H[r] D[r] u. P[r] J.R.Forster mitgetheilten Zeichnung.' The same plate, with the text in Dutch, appeared in the Dutch edition of the same work published in 1787.

7. Forster (1796, II, pl.facing p.264). In the translation of Levaillant's *Reisen* there is an engraving of 'Antelope Oreotragus. Kainsi. Klipspringer.' The animal shown is like that on the engraving in Buffon (1782, pl.XXII) but in reverse and with a different background. Forster (1796, II:264 note) remarked 'Mein verewigter Sohn Georg zeichnete sie zugleich, und ich ließ sie in Jahre 1781 oder 1782 von Schellenberg in der Schweiz stecken. Auf neue ist sie jetzt unter herrn Daniel Bergers Aufsicht in Berlin richtiger und besser gestochen worden.'

6.5.4 *Miller's Icones*

There is a certain similarity between some drawings by George Forster and the engravings published by John Frederick Miller in his *Icones Animalium et Plantarum* (1776-1785) or his *Cimelia Physica* (1796). Miller's *Icones*, a very rare book published in 10 installments, was discussed by Sherborn & Iredale (1921). I have been unable to discover much about a possible relationship between Forster and Miller, except the statement by Mathews & Iredale (1921:145) that Forster commissioned Miller to paint a specimen of *Aptenodytes chrysocome* which was alive in London. Miller accompanied Banks and Solander on their journey to Iceland in 1772 (Lysaght 1959:263). It appears likely that he had access to Forster's drawings kept in the library of Banks.

The plates in the two works by Miller are similar, but the names in the text and the descriptions sometimes differ. In the *Cimelia* the comments were written by George Shaw (1751-1813). There were several species in these works said to occur at the Cape of Good Hope.

Pl. I *Loxia orix* (1776, 1796). No locality was given in 1776, but in 1796 it was said to occur in 'St.Helena, Cape of Good Hope.'

Pl. III *Loxia longicauda* (1776), *Emberiza imperialis* (1796). No locality in 1776, in 1796 said to be 'principally found at the Cape of Good Hope.'

Pl. VI '*Upupa promerops*' (1776, 1796). No locality in 1776, 'Cape of Good Hope' in 1796.

Pl. XVI '*Columba coronata*' (1777, 1796), in 1777 stated to be from the Cape of Good Hope, but in 1796 corrected to 'New Guinea and Molucca Islands.'

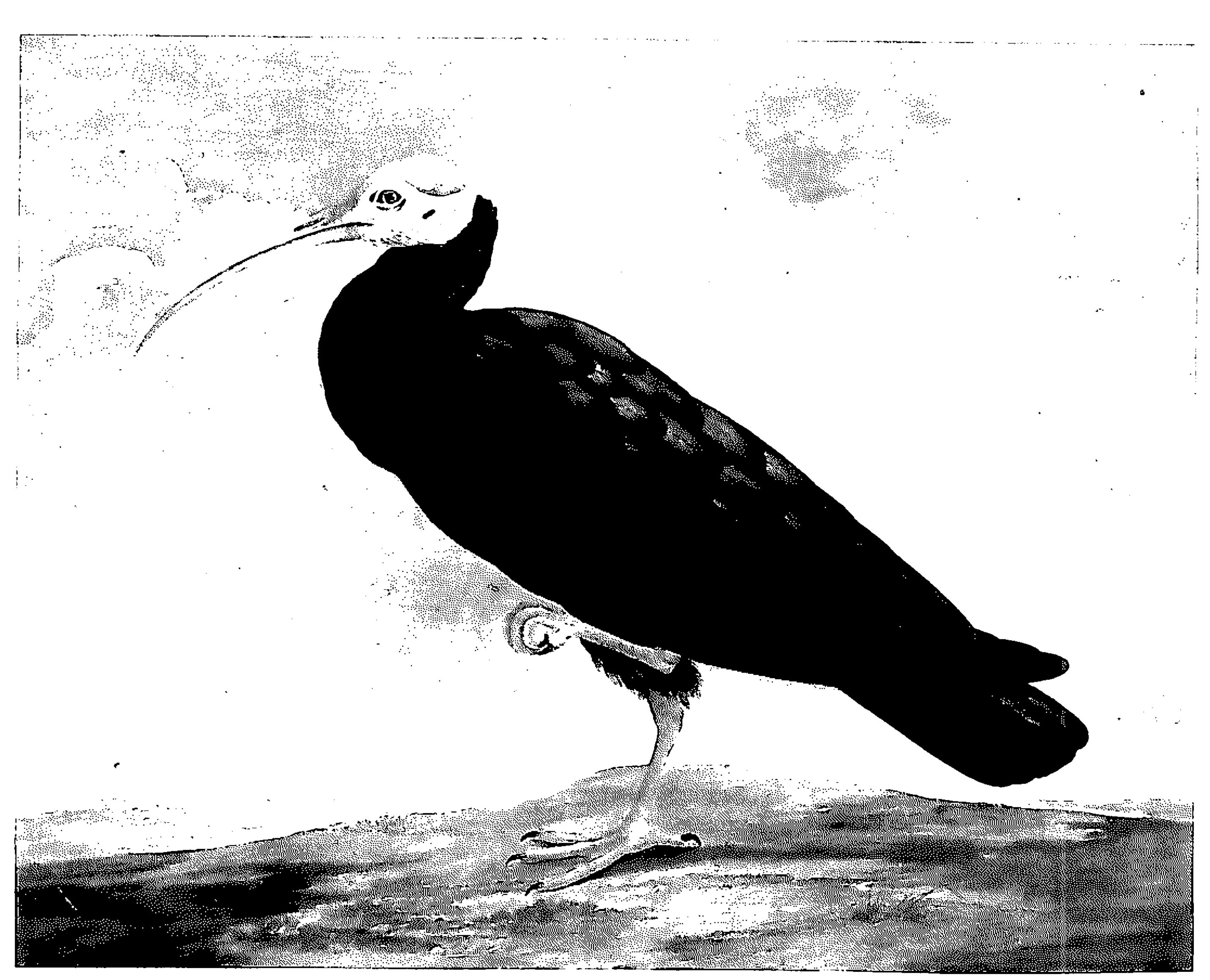


Fig. 13 Bald ibis *(Geronticus calvus)* by George Forster, in the Forschungsbibliothek Gotha (FG 15).

Fig. 14 Cape rail *(Rallus caerulescens)* by George Forster, in the Forschungsbibliothek Gotha (FG 13).

Fig. 15 Curlew sandpiper *(Calidris ferruginea)* by George Forster, in the Forschungsbibliothek Gotha (FG 12).



Fig. 16 Serval *(Felis serval)* accompanying J.R. Forster's description of 1781.

Pl. XX '*Viverra tetradactyla*' (1777/78, 1796), in 1777 only recorded from the Cape of Good Hope, in 1796 from there and from Java.
Pl. XXIVA '*Cuculus indicator*' (1777/78, 1796) from the Cape of Good Hope. In 1796 there is a reference to Sparrman (1777a).
Pl. XXVIII '*Falco serpentarius*' (1779), '*Vultur secretarius*' (1796) from the Cape of Good Hope. It was possibly painted after a specimen brought back alive to England by Forster (see 6.7). The *Icones* of 1779 provided the first description with scientific name of the secretary bird.
Pl. XXXI '*Jerboa capensis*' (1782, 1796) from the Cape of Good Hope. The animal and its head are depicted. The plate is similar to FC 13.
Pl. XXXIX '*Felis capensis*' (1782, 1796) from the Cape of Good Hope. The animal itself and its head are depicted. It is similar to drawings FC 5 and FC 6. In 1796 there is a reference to Forster (1781).
Pl. LX '*Jerboa capensis*' (1796). The 10th installment of the *Icones* in which this plate could have appeared is not known, but it may have been published in 1785. The plate of 1796 shows some parts of the animal depicted on pl.XXXI: 'AA. Represents the upper and under view of the head' and 'CD show the legs, viz.C the hind-leg, D. the foreleg.'

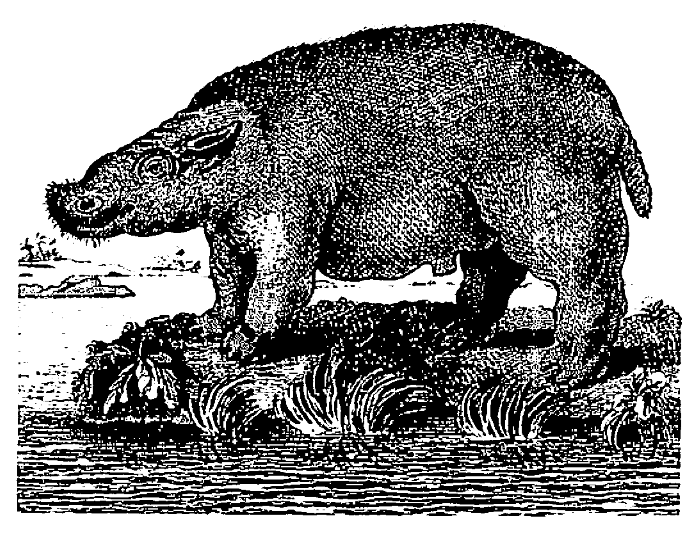


Fig. 17 Hippopotamus *(Hippopotamus amphibius)* drawn by George Forster, in the German translation of Sparrman's travels, 1784.

6.6 TWO CATALOGUES OF DRAWINGS

There are two manuscript catalogues listing (amongst others) the drawings made by the Forsters during Cook's second voyage. One is a general list of animal drawings in the library of Joseph Banks compiled by Dryander. The second is an enumeration of the drawings made by George Forster on Cook's voyage. The entries in those catalogues relating to the Cape of Good Hope are discussed below. Some of those are not only interesting in view of the work of the Forsters, but also in relation to the travels by others.

6.6.1 *Dryander's Catalogue*

This 'Manuscript Catalogue of the drawings of animals in the Library of Sir J.Banks arranged in systematic order' is kept in the BMNH (Zoology Library, 89 f d). It was described in detail by Wheeler (1986:10-15) and more briefly by Whitehead (1978a:32, cat.A). According to Wheeler, it was compiled by Jonas Dryander (1748-1810), librarian of Banks, probably in the period between 1782 and 1788. The manuscript has 251 numbered leaves and listed all animal drawings present in the collection of Banks arranged systematically by genus name. Most entries consist of a species name, an indication to what extent the drawing was finished, the geographical locality and the name of the artist. Below I have mentioned the animals stated to have been drawn in South Africa (C.b.Sp. = Caput bonae Spei). The drawings were finished, unless otherwise stated: *cs* = coloured sketch, *us* = uncoloured sketch. Interest-

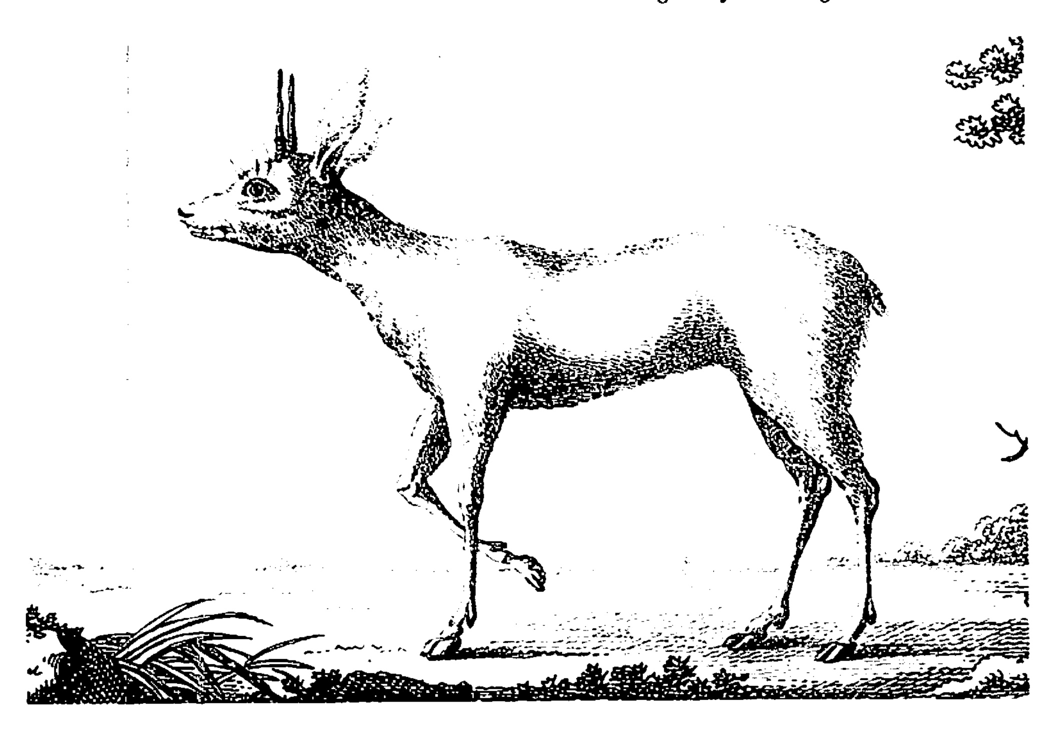


Fig. 18 Klipspringer *(Oreotragus oreotragus)* drawn by George Forster, in the German translation of Levaillant's travels, 1796 (see 6.5.3).

ingly, the items mentioned can almost all be matched with drawings still known to exist in various collections which are discussed in more detail in several parts of this book. They were:

1. The Forster collection (6.5.1), abbreviated FC.
2. A collection in the British Museum (BM.Add.Ms.23920) mentioned in the chapter on Gordon (7.4, no.12). Abbreviated as G.
3. Drawings by Francis Masson and others combined in a volume in the British Museum, 199*B 4, described in the chapter on Masson (8.4). Abbreviated as B.
4. A collection of drawings by Ellis and Webber kept in the BMNH described by Lysaght (1959, various places).

The first column gives the name from Dryander's catalogue with his indication if the drawing was finished (not mentioned) or a sketch. All were said to occur at the Cape of Good Hope. The second column gives a reference to the drawings in their present location as explained above.

Homo Afer: Amaqua Hottentot	– G (folio 26)
anus pudoris hottentotta(*us*)	– ?
idem	– ?
Boschman in Roggeveld	– G (folio 24)
Boschvrouw in Roggeveld	– G (folio 25)
Simia (no species)	– B 60
Canis (no species)	– B 50
Felis capensis, G.Forster (*cs*)	– FC 5
Felis capensis, G.Forster (*us*)	– FC 6
Viverra amphibia, G.Forster	– FC 7 (Madagascar, in Cape menagerie)
Talpa asiatica, G.Forster	– FC 8
Lepus capensis	– B 33
Mus (no species), G.Forster	– FC 13
Spalax capensis, G.Forster	– FC 9
Spalax capensis, G.Forster (*cs*)	– ?
Spalax mordens, G.Forster (*cs*)	– FC 10
Spalax mordens, G.Forster (*cs*)	– FC 11
Spalax mordens, dentes et unguis, G.Forster (*us*)	– FC 12
Sciurus inauritus	– ?
Moschus (no species), caput, G.Forster (*us*)	– FC 14 'Cervus porcinus' in Cape menagerie
Cervus camelopardalis	– ?
Cervus camelopardalis, G.Forster (*cs*)	– FC 15
Cervus camelopardalis, caput, G.Forster (*cs*)	– FC 16
Antilope dorcas	– B 51
Antilope dorcas, G.Forster (*cs*)	– FC 18a
Antilope saltator	– B 46
Antilope strepsiceros	– B 47
Antilope oryx	– B 48
Antilope oryx, G.Forster	– FC 30
Antilope tragulus, G.Forster	– FC 17
Antilope oreotragus, G.Forster	– FC 29
Bos capensis	– ?
Bos gnou (twice)	– B 59
Bos gnou, G.Forster (*cs*)	– FC 20
Bos gnou, caput, J.van Rymsdijk	– 199*B 4, folio 114
Equus zebra	– ?
Hippopotamus amphibius	– ?
Falco sagittarius	– B 54
Falco sagittarius	– ?
Falco sagittarius, G.Forster	– FC 32
Lanius (no species), G.Forster	– FC 41
Psittacus (no species), G.Forster	– FC 51 (Madagascar, in Cape menagerie)
Psittacus (no species), G.Forster (*cs*)	– ?
Cuculus persa	– B 58
Alcedo (no species), J.Webber	– Lysaght 1959:342, coll. in BMNH, folio 134
Upupa promerops, W.Ellis (*cs*)	– Lysaght 1959:326, coll. in BMNH, folio 24
Anas viduata	– B 55
Anas viduata, G.Forster (*cs*)	– FC 76
Anas (no species), G.Forster (*cs*) 3x	– FC 69, 70, 72, 73, 75
Anas (no species), G.Forster (*us*)	– idem
Anas (no species), G.Forster (*us*)	– FC 113
Anas (no species), G.Forster	– FC 112 or FC 115
Ardea (no species)	– ? B 56
Ardea (no species)	– ?
Scolopax capensis	– B 44

Scolopax (no species), G.Forster (*cs*)	– FC 118
Scolopax (no species)	– B 53
Charadrius himantopus	– B 43
Fulica porphyrio	– B 49
Fulica (no species)	– B 35
Rallus (no species), G.Forster (*cs*)	– FC 129
Rallus (no species), G.Forster	– FC 132
Otis afra, G.Forster (*cs*)	– FC 134
Otis afra, G.Forster	– FC 133
Otis (no species)	– B 57
Tetrao (no species)	– B 39
Tetrao (no species), G.Forster (*cs*)	– FC 135
Tetrao (no species)	– B 36
Tetrao (no species), mas. (twice)	– B 37
Tetrao (no species), fem.	– B 38
Turdus (no species), G.Forster (*cs*)	– FC 147a
Turdus (no species), G.Forster (*cs*)	– FC 147b
Emberiza orix, G.Forster	– FC 152
Emberiza vidua	– B 40
Fringilla (no species), G.Forster (*cs*)	– FC 154a
Muscicapa (no species), G.Forster (*cs*)	– FC 154b
Squalus vittatus, G.Forster (*cs*)	– FC 249

6.6.2 *Catalogue of Forster's Drawings*

This manuscript 'Catalogue of Drawings of Animals collected in Cook's 2nd Voyage by George Forster' was described by Whitehead (1978a:32, cat.B.). It is kept in the BMNH (Zoology Library, 89 f F). There are 28 pages with entries arranged in a style similar to Dryander's catalogue mentioned above. Sometimes short notes were added. As noted by Whitehead (l.c.), 'the writing closely resembles Solander's, but the list appears to have been carefully copied from one supplied by the Forsters.' This catalogue only lists drawings by Forster which should be present in the BMNH Forster Collection. The entries of animals stated to occur at the Cape of Good Hope ('C.b.Sp.') are reproduced below.

Felis capensis: colour a little too bright or yellow. Obs: two drawings of natural size (FC 5,6).
Viverra amphibia: Madagascar, seen in the menagerie at the Cape (FC 7).
Talpa asiatica (FC 8).
Jerboa capensis: near Stellenbosch. Larger figure very little less than nature. 2 drawings. Burrows in the ground (FC 13).
Fossor capensis: 3 drawings, natural size, burrow in sand plaines (FC 10, 11, 12).
[Fossor] leucops: natural size, live in the same manner, common near the Cape (FC 9).
Cervus camelopardalis: the small figure copied from an oil painting. The larger from nature (FC 15, 16).
Cervus porcinus: India, at Cape menagerie (FC 14).
Antilope dorcas: gregarious. 2 Dr. from the menagerie. Springbock (FC 18a, 18b).
Antilope oreotragus: fig.fr. a wild dead animal, klip-springer (FC 29).
Antilope tragulus: var. with black ears, melanotis, greis-bok (FC 17).
Antilope orix: elandt. The figured animal was lean & the Belly too strait (FC 30).
Bos Connochaetes: 2 copies, the other originals (FC 19-28).
Equus zebra: var. copied (absent).
Falco serpentarius: tail wanted, the background by Mr Hodges (FC 32).
Lanius cafer: near of Cape, nat. size (FC 41).
Anas pyrrhorhyncha: nat. size (FC 73).
Anas assimilis: nat. size (FC 75)
Anas montana: berg-endten- Live in the mountainous country far within the land. 2 dr. Obs: Mr Forster has a drawing in colour made by a soldier at the Cape. Nat. size (FC 69, 70).
Anas viduata: nat. size (FC 76).
Ardea palearis: diminish'd, from the interior country (FC 115).
Ardea cocoi?: in the menagerie (FC 112, 113)
Tantalus cafer: nat. size. Obs: dried specimen (FC 116).
Rallus cafer: nat. size (FC 129).
Rallus aethiops: nat. size (FC 132).
Otis afra: knorrhans. Mas & Femina, nat. size. 2 draw. (FC 133, 134)
Tetrao capensis: cape pheasant, nat. size. Fig.Pict. Masson & specimen (FC 135).
Turdus phoenicurus: nat. size (FC 147a).
Turdus sordidulus: nat. size (FC 147b).
Emberiza orix: nat. size (FC 152)
Fringilla bicincta: nat. size (FC 154a)
Muscicapa dubia: nat. size (FC 154b)
Squalus striatus (FC 249).
Blennius capensis: good eating (FC 187).
Scomber capensis: white (FC 224).

6.7 COLLECTIONS

The intricate history of the zoological collections assembled during Cook's three voyages was well traced by Whitehead (1969, 1978b). The scope is, of course, much reduced when only the animals collected at the Cape of Good Hope by the Forsters have to be considered. Whitehead showed that some of this Forster material went to Banks, and some to the British Museum (e.g. Cape mammals and birds, 8 September 1785). Unfortunately no details are available which specimens these could have been.

The material which Forster gave to the Royal Society, London is somewhat better known. As noted above, Forster wrote to Pennant on 19 November 1772 that he was forwarding to the Royal Society 'several birds & animals in spirits & a box full of skins of birds & stuff'd ones.' This shipment was duly received in England and 'several birds, and other Animals, from the Cape of Good Hope' were presented by Barrington to the Royal Society on 1 July 1773 (Gordon 1975:185, 195). There are a few indications of the contents of this presentation, but the list is unlikely to be complete. It is not always sure if the material was collected in 1772 or in 1775.

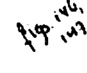
1. Brown (1776, pl.35) illustrated the 'Umbre' (*Scopus umbretta*) from the 'interior parts of the Cape of Good Hope. In the Museum of the Royal Society, sent there with various other productions by Dr John Reinhold Forster'.
2. In Forster's *Descriptiones Animalium*, there are indications that specimens were sent to the Royal Society (see 6.4.8): *Chrysochloris asiatica* (one in spirits), an unidentified bird called *'Lanius frontalis'*, *Neophron percnopterus*, *Calidris ferruginea*, *Eupodotis afra*, *Euplectes orix*.
3. Forster (1796,I:188 note) mentioned a specimen of *Tadorna cana*.

In 1781, the Royal Society's museum was transferred to the British Museum. Only very few of the specimens from that collection can still be recognised and none of the above (Whitehead 1969, 1978b, Wheeler 1981).

Forster also took a few living animals with him to England. Among these, there was one specimen of the springhaas (*Pedetes capensis*) but during the voyage home, on 27 June 1775, Forster recorded 'My Yerbua Capensis died this night' (Hoare 1982:754).

Baron van Plettenberg gave one springbok (*Antidorcas marsupialis*) to Forster in 1775 (Forster 1796,II:103, 1844:389). He took it with him and it became quite tame: 'Une de ces chèvres sautantes, âgée de trois ans, que nous avions prise au Cap, & qui

étoit fort farouche, s'apprivoisa sur le Vaisseau, au point de venir prendre du pain dans la main & elle devint si friande de tabac, qu'elle en demandoit avec empressement à ceux qui en usoient; elle sembloit le favourer & l'avaler avec avidité; on lui donna une assez grande quantité de tabac en feuille qu'elle mangea de même avec les côtes & les tiges de ces feuilles' (Forster in Buffon 1782:178). The animal survived the journey and Forster presented it to the Queen of England on 21 August 1775 (Hoare 1976:154). It lived in the menagerie at Richmond for almost 2 years, until 1777. 'Sie kam trächtig in England an, und warf mitten im Winter. Ihr Jünges war todt (doch nicht von Kälte): sie selbst aber blieb leben' wrote Forster (1796,I:330 note). The Duke of Richmond had often kept animals in the estate around Goodwood House, near Chichester, Sussex, especially in the 1730's and 1740's; about the collection kept by the third duke (1735-1806) not much is known (Keeling 1985:61-62). Maybe the springbok brought by Forster was later stuffed. There are two drawings in the Hunterian Museum, Glasgow of an obviously stuffed springbok, one of which is signed 'Fred. Birnie, Decemb[r] 4[th] 1778.' The animal may have been preserved in the collection of William Hunter, but no evidence to that extent exists.



At the Cape, Forster bought two live secretary birds (*Sagittarius serpentarius*): 'Ich erhielt am Kap ein Paar Sekretarisvögel zu einem hohen Preis; denn ich gab dafür Eduards Vogelgeschichte, illuminiert, 7 Bände, 4° und Brissons Ornithologie, sechs Bände, 4°, von denen ich jene mit 14, und diese mit 6 Guineen bezahlt hatte' (see Hoare 1976:290, 1982:102). The birds were given to Queen Charlotte, but their fate is not recorded. The description by Latham (1781:31) of the 'secretary vulture' was 'taken from three which were alike, which I saw in England alive, some years since; two of which are now in the Leverian Museum. From confinement, they had lost their two tail-feathers, but this want was supplied by some accurate drawings, which Mr Banks favoured me with, taken from life, at the Cape.'

Forster may have taken other live animals. On 23 May 1775 while at sea he recorded the loss of some specimens: 'Lost one of my Surikatyes, a waxbill & had two small Redbeaked Ducks killed by Dogs' (Hoare 1982:743). This would imply that at least one other 'surikatye' (*Suricata suricatta*) survived. Solander saw the animals in England and informed Banks on 14 August 1775 about '... a Spring Bock from the Cape, a Surikatte, two Eagles & several small Birds all from the Cape' (cited in Hoare 1976:153, 1982:103 note). The two eagles probably were the secretary birds.

CHAPTER 7

Robert Jacob Gordon

7.1 BACKGROUND

R.J.Gordon (1743-1795) was an officer stationed at the Cape of Good Hope from 1777 until his death by suicide in 1795. He visited the Cape in 1772-1773 with an unknown purpose and few results of that journey became known. In 1777-1780 Gordon undertook three major expeditions into the interior exploring the more distant parts of the colony both in the east and in the north. He saw and named the Orange River as early as 1777. His interest in the mammals and birds of that part of Africa was remarkable and unexpected for somebody with his background. He consciously tried to gather information about the animals, especially the mammals, and to discover the distinguishing characteristics of the various species. He even studied the anatomy of some animals like the hippopotamus, rhinoceros, giraffe and hyena. He also prepared drawings with the help of an artist who is identified as Johannes Schumacher.

There are various manuscript sources telling about Gordon's zoological observations. The best known is a collection of drawings of South African landscapes, people, animals and plants, known as the 'Gordon Atlas.' The existence of this collection was known and it was studied from time to time, but no details about the zoological drawings have ever been published (7.6). The second valuable collection is one of manuscripts written mainly by Gordon, the 'Gordon Manuscripts' (7.5). This includes many short notes about a variety of subjects, as well as the journals kept during the expeditions. These journals mention a large number of animals encountered on the way (7.7).

It is not clear if Gordon had a special purpose to collect these data. Apparently he contemplated to publish them, but if he in fact prepared a manuscript, it is not known. He did send some of his information, drawings and mammal specimens to Holland, where they were received by J.N.S.Allamand, professor of natural history at the University of Leiden, and by A.Vosmaer, director of the natural history collections (museum and menagerie) of prince Willem V. Vosmaer and especially Allamand published some descriptions of new species included in these shipments in the course of the 1780's and thus contributed to a dispersal of Gordon's work (7.8, 7.9, 7.10).

Gordon lived at the Cape in a period with important progress in the understanding of nature. Because his own contributions only appeared in print in a very indirect way, it is easy to underestimate his influence. He was not a trained zoologist, yet one of the few travellers who took pains to understand the differences between, for instance, the large number of antelopes found in the interior. At the same time he must have been pleased to help others who visited the Cape with similar interests. We are beginning to perceive that Gordon was a pivotal pioneer in the scientific discovery of the South African fauna.

A new book about Gordon appeared at the end of 1988, too late for the results to be incorporated in this present work: Peter E. Raper and Maurice Boucher (editors), Robert Jacob Gordon: Cape travels, 1777 to 1786 (Houghton, Brenthurst Press, 1988, 2 volumes). Essentially, these two large and well illustrated volumes include an annotated English translation of Gordon's expedition journals, kept among the 'Gordon Manuscripts' in the Brenthurst Library (see 7.5; Raper & Boucher call these various manuscripts collectively 'Gordon Collection').

The text of all four expedition journals is reproduced almost entirely, in translation. Gordon was a careful observer and his notes should prove to be a valuable asset for those interested in the Cape of Good Hope in the 18th century. I had tried to study the zoological content of these journals (7.7) without direct access to the manuscripts themselves. This new edition, therefore, should allow a more careful analysis of this aspect as well as of the route travelled. The text of the journals is preceded by a short biographical introduction which does not present new material. The contents of all Gordon's manuscripts in Brenthurst are listed, but all too briefly, which makes a comparison with my summary a little hazardous.

The coloured illustrations selected by Raper and Boucher are only partly Gordon's work. Unfortunately, the source of each plate is not clearly listed in the books. The majority is taken from the Gordon Atlas in Amsterdam, including the following depictions of animals: GA 98 (fig.44), GA 100 (fig.37), GA 106 and 107 (fig.55), GA 124 (fig.81), GA 150 (fig.63), GA 151 (fig.77), GA 153 (fig.76), GA 176 (fig.32), GA 177 and 178 (fig.47), GA 181 (fig.29), GA 182 (fig.13), GA 183 (fig.73), GA 190 (fig.86), GA 225 (fig.18), GA 280 (fig.1), GA 306 (fig.75), GA 307 (fig.58). The other illustrations were either taken from the Paterson Albums (11.5) or from other collections in the Brenthurst Library, like two drawings contemporary with Gordon's work showing a zebra and an eland (figs.22, 70; see 7.4.3).

7.2 BIOGRAPHY

7.2.1 *Early life*

Robert Jacob Gordon[1] was baptized on 29 September 1743 in Doesburg, Holland (Jeffreys 1928:24, Barnard 1950:326).[2] The family originally came from Scotland. Robert Jacob's great-grandfather, Robert Gordon (d.11 June 1693) emigrated from Aberdeenshire to Schiedam, Holland, where he obtained civic rights in 1651. The genealogy of this 'Dutch' branch of the

1. Many biographical details can be found in Urban 1796, Barnard 1950 and Forbes 1965: 93-116. Additional smaller contributions include Becker 1987: 79-91, Britten 1914, Gordon-Brown 1952: 95, Gunn & Codd 1981:170, Lighton 1958:53-80, Lysaght 1959:263, Molsbergen 1914, Morton 1949:94, Oliver 1948, Paston 1902:228, Rookmaaker 1979, 1980, 1981, le Roux 1939:8, Storrar 1974:217, du Toit 1938, Willcox 1986:24 ff.

2. The year of birth is often incorrectly given as 1741.

Gordon family was given by Wildeman (1911) and only a few details need to be repeated. Robert Gordon's fifth child, from his marriage to Lysbeth van Dale, was Robert Gordon Jr. (d. 3 November 1732). This son became mayor and counsillor of the town of Schiedam, which led to the unwarranted conclusion that the Gordons then were already a long established family in Holland (Urban 1796:442, Bulloch 1908:148). There were 12 children born to Robert Gordon Jr. and Maria van Reyn (married 22 January 1687). The 7th child was Jacob (or James) Gordon, born 6 January 1701, died 1 February 1776 in Leiden. Jacob Gordon had a successful career in the Scots Brigade in Holland starting as captain in 1724 and reaching the top as major-general in 1766.[3]

In November 1726, Jacob Gordon married Johanna Maria Heijdenrijck (d. 17 August 1783), daughter of Johan Anthony Heijdenrijck and Driesken, *née* Hoenders. They had 7 children: Menso, Maria Robbertina, Adam Bernard Smits, Johan[nes], Otto Dirk, Robert Jacob, and Aletta (Wildeman 1911 included some details about their careers). Robert Jacob Gordon, our subject, apparently started his military career at an early age, but the exact time is not known. It was 'early' (Urban 1796:442) or 'from infancy' (Hickey 1918:107). Barnard (1950:326) suggested the year 1753. The same year could be taken from a letter which Gordon wrote to Admiral George K.Elphinstone on 14 June 1795 (Theal 1897,I:45) stating that he had served his country 'these 42 years'. There is no confirmation of this elsewhere. In any case, his enrolment at such an early age probably was not much more than a formality because Gordon went to school as usual. The ranks Gordon passed through at the start of his career can be gleaned, without the exact dates, from the records in the ARA as reported by Gunn (1954). In the 'conduite lijsten' ('statements of conduct') of 1 January 1775, Gordon is entered: 'Born in 1743, reformed, single, cadet 47 months, ensign ('vaandrig') 72 months, lieutenant 84 months' (translated). He would have been promoted to captain on 11 April 1774, when he was travelling in Africa.[4]

On 12 September 1759 R.J.Gordon was enrolled as a student at the University of Harderwijk (van Epen 1904:116a, Wildeman 1911:240). His four older brothers also studied there, but only Adam Bernard Smits is known to have completed with a dissertation (Bouman 1847:286). Robert Jacob likewise did not go that far. It is not immediately apparent if his later interests in geography, meteorology and natural history were stimulated during his years in Harderwijk. His linguistic abilities probably go back to this period. He was able to speak Dutch, French, German, English and Gaelic, to which he later added some Hottentot and Caffer languages (Urban 1796:443, Hickey 1918:108, Pasley 1931:85). In his obituary, Urban (1796:442) noted that Gordon during these early years 'visited such parts of Europe as his leisure would admit' about which no confirmation could be found.

3. The history and background of the Scottish Brigade in the Dutch Republic has been treated recently by Childs (1984).

4. Research by D.J.Cannegieter (communicated through the kindness of H.W.J.Picard) gave the following dates of ranks: 1.12.1759 vaandrig (ensign), 30.12.1765 lieutenant, 11.4.1774 captain (in 1775 à la suite) and 27.11.1776 demissed. Gordon's name was also found in the list of officers on 19 December 1767 of the Freemason Order's loge 'La Vertu' in Leiden, but neither in the preceding nor the following year.

7.2.2 *First stay in South Africa*

In 1773 Gordon travelled to the Cape of Good Hope on the ship *Holland*, accompanied by Bartholomeus van de Copello (Barnard 1950:327). The purpose of the journey is not recorded and probably it was a private affair during a period of leave (Urban 1796, Forbes 1965:94). Gordon's activities in South Africa are equally unknown. No journal or correspondence about this period have been found. Thunberg (1986:144-149) described how he, Gordon and Masson enjoyed a foot-trip to the mountains between the Cape and False Bay, from 13 to 19 May 1773.

During this visit, Gordon also made his first journey into the interior. The most informative, but brief, passage about this expedition was published by Allamand (1776:113): 'il a pénétré dans l'intérieur du pays plus avant qu'aucun autre Européen: accompagné d'un seul Hottentot, il a bravé toutes les incommodités d'un voyage de plus de 200 lieuës.' In the same book, Allamand (1776:124) mentioned Gordon's observations of hippopotamuses on the Berg River 'qui se jette dans la Baye de St.Hélène & qui est à 30 lieues du Cap.' This referred to the Groot Berg River some 100 km north of Cape Town. If the '200 lieues' recorded by Allamand were a true indication of the extent of the expedition, Gordon would have travelled some 600 km inland, reaching (in a straight line) beyond the Orange River if he went north, or beyond Port Elizabeth if he went east. One can only wonder how accurate the remark by Allamand was. In any case, after his return to Holland, Gordon showed a certain knowledge of both the Cape fauna and the Hottentot language.

On 1 May 1774 Gordon and Van de Copello left the Cape on the *Azië* and returned safely to Holland (Barnard 1950:328, Forbes 1965:94). They took with them 12 living springbok (*Antidorcas marsupialis*), of which only one survived. Gordon donated it on 30 July 1774 to the menagerie of prince Willem V at The Loo, where it died in August or September 1777 (Allamand 1778:142, Vosmaer 1784b:3,7, Sclater & Thomas 1897,III:57, Forbes 1977a:37).

7.2.3 *Last stay in Holland*

After his return to Holland, Gordon continued to serve in the Scots Brigade. At the end of 1774, he visited Aernout Vosmaer, the director of the natural history museum and the menagerie of prince Willem V. Vosmaer (1784a:4) mentioned in one of his papers that Gordon 'bevestigde, met eenig bericht der verdere eigenschappen der dieren, ... de moeielijkheid der Hottentotsche tongslagen, die dikwijls in derzelver taal of spraak voorkomen' ('Gordon confirmed, with some information about the habits of animals, the difficulty of the sounds made by the Hottentots with their tongue in pronouncing their language'). Gordon also went to see professor Allamand in Leiden. He told about his trip to South Africa and about the animals living there. Some of these remarks are found in Allamand's descriptions of the wildebeest and hippopotamus (Allamand 1776:113, 124). Gordon gave to Allamand the skin of the head of a black wildebeest. Gordon had returned home with two of such specimens, as well as several other animal skins (Allamand 1776:113).

In 1776, Gordon was appointed to serve in the garrison of the Dutch East India Co. at the Cape of Good Hope with the rank of

captain (Barnard 1950:389). This may have been on his own request because he was interested in Africa. A different reason was given by Allamand (1778:142) who said that Gordon returned to Africa 'd'après avoir obtenu de la Compagnie des Indes un emploi de confiance, qui ne pouvoit être mieux exercé que par lui, mais qui ne l'empêchera point de pousser ses recherches comme naturaliste.' No other clues about this confidential assignment have been found.

Gordon left Holland on the *Willem de Vijfde* and arrived at the Cape of Good Hope on 1 June 1777 (Barnard 1950:389). He never left the African soil again.

7.2.4 *Years of exploration*

When Gordon arrived in Cape Town, the country was at peace. This gave him time to devote himself to some of his hobbies. He did not waste time: some zoological drawings preserved in the Gordon Atlas (nos. 132, 133, 136) were dated 1 and 2 July 1777. During the first three years, Gordon made three long expeditions into the interior, possibly with the official excuse to survey the distant parts of the colony. His personal interests were such that he spent much time in observing the local people, plants and animals. These expeditions are further discussed below (7.7). His second and third journeys[5] went eastwards, 6 October 1777 - 8 March 1778 and 28 August 1778 to 25 January 1779. The fourth expedition went to the north, 22 October 1779 to 13 January 1780.

Shortly after, in December 1780, England declared war on The Netherlands. This, of course, would have prevented Gordon to set out on another journey. There was, however, at least one other reason. On 24 April 1779, in the interval between the 3rd and 4th expeditions, Gordon wrote to Hendrik Fagel[6] that he intended to make 'nog ene reise' ('one more trip'), in order to be able to send a full account of the country.

On arrival in 1777, Gordon joined two officers of the same rank, captains Carel Matthys de Lille and Lodewijk Christoph Warnecke. They stood immediately below the commander of the Cape garrison, Lieutenant-colonel Hendrik van Prehn (Barnard 1950:389). When Van Prehn left the service on 22 February 1780, Gordon succeeded him as the senior officer. The approbation to this promotion was requested on 2 March 1780 and later obtained (Jeffreys 1928:24,256). Gordon obviously was very eager to attain this new position, and in his letters to Fagel (23 January and 10 March 1780), he asked Fagel to intercede on his behalf. He was appointed to the rank of colonel on 26 March 1782, thus becoming the first officer with that rank at the Cape (Barnard 1950:390).

Gordon married on 23 April 1780 in Cape Town to Susanna Marguerite Nicolet.[7] She was baptized on 30 May 1749 at Lignerolle, canton Vaud, Switzerland, daughter of Nicolas Nicolet and Jeanne-Françoise le Resche of Lignerolle (Barnard 1950:329, Forbes 1954). When they met is not known, but it was either in Holland (Barnard 1950:329, Forbes 1954) or in Cape Town. According to Gordon's obituary (Urban 1796), his wife was a 'very amiable and sensible woman.' Mary Ann Parker (1795:50) visited the family in June 1791 and mentioned the 'polite and friendly attention I received from Mrs Gordon, who is a Swiss lady, and who most agreeably acquiesces in whatever may tend to render those comfortable who have the happiness of being ranked amongst her acquaintance. After what I have said, it will easily be supposed that their children are taught the same engaging attention to strangers.' Later, however, one of the secondary reasons for Gordon's suicide was said to be the bad relationship between him and his wife (Paston 1902:229, Barnard 1950:434). In a pamphlet of 1796 (H**** 1796:7,8), a fulmination against Gordon and hence obviously subjective, Mrs Gordon is called 'fort honnête et très-spirituelle. Mais elle est mordante, très-active et a toujours mené le Colonel Gordon par le nez' (see Schutte 1970:103).

There were 7 (not 4) children from this marriage. Three of them probably died at an early age; they certainly did not accompany their mother back to Europe in 1797. The following details about them can be taken from Barnard (1950:383), de Villiers (1966:253) and Forbes (1954).[8]

1. Robert, baptized 16 September 1781 in the Groote Kerk, Cape Town. He married in 1814 at Metz, possibly died in 1815.
2. Pieter, baptized 23 November 1783 in Cape Town, maybe died c.1827.
3. Otto, baptized 23 January 1785, probably died young.
4. Alexander, baptized 9 April 1786, became a naval lieutenant in France. Married in 1820 in Amsterdam.
5. Johanna, baptized 23 December 1787, died young.[9]
6. Johannes Isaac, baptized 8 February 1788, died young; either the baptisms of the 5th and the 6th child were much after the actual birth, or there is a mistake in the dates.
7. James Charles Gerhard, born 22 May 1791, baptized 12 June 1791 in Cape Town. Married on 14 September 1812 at Prilly, Switzerland (3 children). In 1814, he enrolled in the Swiss guards in Paris, where he remained until 1830. In 1836 his mind became unsound and he was confined to a lunatic asylum in Lausanne. He was alive in 1839, but by 1847 he had died. This Gordon became known in a controversy about the invention of the modern flute, as detailed by Welch (1896), Bulloch (1908:247-252) and Kirby (1957).

7.2.5 *Years of war*

The news about the fourth war against England reached the Cape on 31 March 1781 with the arrival of the French frigate *Silphide*. The 500 resident troups were not enough for the defense and they were assisted by the Regiment of Pondicherry until April 1784, the Regiment of Luxembourg from May 1782 to February 1783, the Swiss Regiment of Meuron from January 1783, and by the French Regiment of Waldener from February to April 1783. Peace was declared in September 1783.

During the war years, Gordon had to attend to his duties as commander. It appears to have been a difficult period in his life. Barnard (1950:390-394) showed from the existing official records that Gordon was uncertain about his duties and authority, especially towards the regiments of foreign troops. Gordon three times requested the political council (25 May 1782, 28

5. In the existing literature, Gordon's expeditions have been counted starting from the one made during his first visit in 1773/74. The expeditions made between 1777 and 1780 are numbered 2nd, 3rd and 4th, the one of 1786 is number five.

6. Fagel-Archief 2533, p.1.

7. Variant spellings of her name exist, e.g. Susanna Margaretha (e.g. de Villiers 1966:253) and the surname as Nicolett.

8. The information presented by Forbes (1954) is largely a translation of a letter by Louis Junod, l'Archiviste d'Etat, to M.Gunn, 28 July 1950, based on records in the Cantonal Archives, Lausanne, Switzerland.

9. De Villiers (1966:253) has 'Johannes, baptised 23.12.1787'

January and 18 February 1783) to which extent those foreign troops had to obey his orders. The answers given by Governor van Plettenberg were unsatisfactory. Not until 3 February 1786 came the reply from Holland that all troops were under the direct authority of Gordon (Barnard 1950:393). Gordon's discontent clearly appears in two letters of this period. On 30 June 1784 he wrote to prince Willem V:

> enfin Monsieur je ne suis pas vous cacher que tous ces desagrements m'ont très fort degouté du service icy, ainsi que si l'on veut me laisser dans la position présente, que j'ai resolú de quitter le service, et comme je n'ai point pour pouvoir vivre en Europe et que j'ai femme et enfans, je prefererai de mener la charue dans un canton reculé de l'afrique pour leur entretien, que de voir plus longtemps ce desordre sans que j'ai le pouvoir et auctorité d'y pouvoir remedier.[10]

The next day, he wrote in a similar vein to Fagel, 1 July 1784:

> ik heb ... alhier een zeer onaangenaam leven hier gehad, en bij continuatie nog veroorsaakt door de regimenten dewelke de Company genoodzaakt is geweest om in dese ongelukkige tijden schielijk aan te werven, en van dewelke men niets dan onaangenaamheid heeft.[11]

Only after the declaration of peace, Gordon could pursue his various interests again. He took the opportunity to undertake a fifth and last expedition, from 19 November 1785 to 12 March 1786. Maybe he made a few short excursions later. Forbes (1965:38,111) suggested that he may have travelled again with Masson or with the Austrians Scholl and Boos (5.84). The connection with the last people rests on a letter from Graf Cobenzl to Boos (20 March 1787) in which he expressed his regret to be unable to travel 'mit Ihnen und Herrn Gordon in den vier und zwanzig Rivieren' (Giese 1962:89).

Gordon's health began to fail. From February 1789 his attendance of the meetings of the political council became irregular (Barnard 1950:434, note 20). He was bedridden by a bad cough, at night accompanied by internal fever.[12] The exact nature of the sickness is not revealed, nor how long it bothered Gordon. It probably lasted a considerable time. H****(1796:6) stated that at the time of his death, Gordon 'étoit maigre comme un squelette'; caused by his sickness?

7.2.6 *Importing Merino Sheep*

It is not possible to write about the life of Gordon without telling about his sheep due to their vital contribution to the Australian economy. Apparently, Gordon imported a group of sheep twice. As early as 10 April 1778, Gordon wrote to Fagel that 'niets zal mij meer plaisier doen dan de spaanse schapen te ontfangen, en er alle mogelijke zorg voor te dragen.'[13] They came a year later, as he wrote to Fagel on 24 April 1779 that 'de schapen uit Spanje heb ik om vele redenen op het robben eiland gebragt, zij zijn wel, en telen al voort, hebbende al twe schone lammeren, die een beter ras dan het origineel beloven.'[14] It is unknown if these survived.

In 1789, Gordon received another group of 4 rams and 6 ewes of merino sheep originally from the Spanish Escurial flock. They had been sent to improve the animals at the Cape, possibly by the Hollandsche Maatschappij tot Nut van het Algemeen, a Dutch organisation founded in 1784. The history of these sheep, important to the shaping of the Australian stock, was told e.g. by von Bouchenroeder (1806:23-25), Thom (1936:52, 267) and Barnard (1950:375-379). The animals imported in 1789 were returned to Holland after a few years. Gordon, however, sent the original number only and kept the offspring in South Africa, maybe under personal care, because his widow sold them after his death. In 1796 there were 32 animals. In 1797, the ship *Reliance* under captain H.Waterhouse and the *Supply* under captain Kent called at the Cape. Waterhouse had been asked by John MacArthur, governor of New South Wales, Australia, to bring fresh blood for his sheep. He heard about the possibility to buy sheep from Mrs Gordon. At the same time, P.G.King and William Paterson were at the Cape on their way to England. In the end, Waterhouse and Kent each bought 13 sheep at £4 a piece for the Australian stock, and 3 each were given to King and Paterson. King sent his on the *Reliance* to New South Wales Only 8 out of those 29 sheep transported to Australia arrived safely. Paterson gave his share to Sir J.Sinclair in England.

7.2.7 *Gordon's character*

Gordon always showed great hospitality towards foreign visitors. Several of them have put an acknowledgement in their writings. On the other hand, it has been suggested (Hamilton 1793:158, Forbes 1965:93) that some deleted his name on purpose because they had used his information or his drawings. A few impressions about Gordon mentioned by visitors may be recorded here to gain an idea of his personality (see also Barnard 1950:380-387).

William Hickey[15] came in 1777 and mentioned that Gordon 'was very civil, showing us everything that was worth seeing. ... He was a very accomplished man, an excellent classical as well as general scholar, spoke English and, indeed, all the languages of Europe fluently' (Hickey 1918:107). Gordon and Paterson proposed to climb Table Mountain with Hickey, a trip well organised. Gordon even arranged to have breakfast at the foot of the mountain accompanied by the 'celestial sounds' of two flutes played by Hottentots (Hickey 1918:108-111). On the top of the mountain, they caught a black snake called 'copra manille' which was taken in a bottle filled with gin (Hickey 1918:110).

10. Koninklijk Huisarchief, inventaris Willem V, 18-335 I.

11. Fagel Archief 2600(11). Translation: 'I have had here a most unpleasant life, and this continues through the presence of those regiments which the Company had to recruit quickly in these unfortunate days, and which give nothing but unpleasantness.'

12. Stated in the '1e Memorie de pepiniere concernerende' 6 February 1789 (Koninklijk Huisarchief, inventaris Willem V, 18-335 I).

13. Fagel-Archief 2515,p.9. Translation: 'Nothing would be better than to receive the Spanish sheep, and care for them.'

14. Fagel Archief 2533,p.12. Translation: 'The sheep from Spain were taken to Robben Island for various reasons, they are well, and reproducing, as there are already 2 nice lambs, promising a better race than the original.'

15. William Hickey (1749-1830), a lawyer who worked many years in India, became known for his *Memoirs* which chronicled the lives of his acquaintances. The *Memoirs* were not published in his time, but were first edited by Alfred Spencer between 1913 and 1925. A newer version edited by Peter Quennel in 1960 and revised in 1975 restored some passages, but deleted others. The trip made by Hickey with Gordon and Paterson to Table Mountain is given by Spencer, not by Quennel. Hickey's time in South Africa was also discussed by Forbes (1947b).

William Paterson himself, whose travels in South Africa are described in chapter 11, only told that Gordon was 'a gentleman of extensive information in most branches of natural history' (Paterson 1789:4). Gordon was quite generous to tell others about his experiences in the South African interior and to share details about the fauna, flora and people of the Cape region. Such information was repeated, often with a few kind words about Gordon's extensive knowledge, by travellers like Sonnerat (1782:93), King (1785:482), captain Edwards (in Hamilton 1793:158), Collins (1798:8), Stavorinus (1798,II:316, 321) and Labillardière (1800:89). Thomas Pasley (1931:85), writing on 5 May 1780, called him 'a most ingenious, intelligent, sensible, and agreable acquantaince. ... He speaks Dutch, English, French, Hottentots, Caffree and Erse: has collected innumerable curiosities as a virtuoso.' On 18 June 1788 Lachlan Macquarie called at the Cape on his way to India. He was visited by Gordon and Masson, and Gordon entertained with stories about the country: 'We had a very merry Day of it and a great deal of dancing with the Ladies to fine Moonlight on the Quarter Deck. Colonel Gordon is a very jovial fellow. He sang a number of their [Hottentot] songs to us in their own real manner and language. ... He entertained us with a Gaelic song. ... In figure Colonel Gordon is a tall, stout, soldierlike man' (Oliver 1948:17, Forbes 1965:93). Parker (1795:55) too mentioned such singing, 'during a dessert that would have gained general applause from the nicest Epicure, singing was introduced, in the course of which we were favoured with a Hottentot song from the Colonel: to describe any part of it would be impossible; but, without a wish to offend, I must say that it appeared to me the very reverse of all that is musical or harmonious; and the colonel, who gave us strict charge not to be frightened with what we were to hear, seemed to enjoy the laughter it occasioned. Different songs having gone round, the Colonel's son amused us with several pieces upon the organ.'

On a more serious note, there is a report by Cornelius de Jong, who discussed some experiments done by Gordon in 1793 with red hot bullets (see Barnard 1950:400-405). Part of his exposition was a description of those experiments written by Gordon personally, dated 16 September 1793 with appendices dated 18 and 23 September 1793 (de Jong 1802:89-101 and 102-106). These were the only words written by Gordon which were directly published, albeit posthumously.

In these stories, Gordon appeared as a genial man who provided good company to his visitors. He was always glad to tell about his expeditions into the interior and to share some of his information. Clearly Gordon enjoyed the company of the visitors which may have helped him to overcome the limitations of living in the rather unsophisticated cultural environment of Cape Town in those days. His stature, at least before his disease, was imposing with a height of 6 feet. Two anonymous oil paintings probably representing him and his wife are in the William Fehr Collection, The Castle, Cape Town (reproduced by Forbes 1977a:57, Willcox 1986:9, pl.I).

7.2.8 *Gordon's private collections*

Gordon not only looked around during his expeditions, he also collected some objects and animals met on the way. There is very little recorded about his own collection. During his later years, Gordon lived in the house *Schoonder Zigt*, on the Prins Straat, near Platteklip Gorge in Cape Town. This house was built in 1785-1787 for Jean de Bonnaire and bought by Gordon on 16 May 1788; his wife sold it on 8 March 1797 to Philemon Pownall (Storrar 1974:91). It was demolished around 1950 (Bax 1970:50).

There were only a few visitors who mentioned the objects and living plants assembled by Gordon. On 5 May 1780, Pasley mentioned that Gordon had 'collected innumerable curiosities as a Virtuoso' (Pasley 1931:85). According to Mrs Parker (1795:50), visiting in June 1791, 'the good colonel is already well-known for his museum, and manuscripts relative to natural history.' Edward Bell, clerk on George Vancouver's voyage, mentioned in July 1791 that Gordon owned two memorabilia of Cook's voyage, 'the double-barrel'd Gun that Cook had in his hand when he was kill'd' and 'a piece of the Resolution which he had preserved tipp'd with silver' (quoted by W.K.Lamb in Vancouver 1984:57).[16] Best (1808:300) was the most elaborate, if not too specific, when he mentioned a visit to Gordon in 1792: 'Hij ontving ons zeer wellevend, verhaalde ons van zijne Reizen, en toonde ons verscheidene zeldzaamheden van dit land: onder anderen ook eene opgevulde Kameelpardel, eene Giraffe, zijnde een wijfje, welke hij zelve geschoten had. ... De overste bezit een aanzienlijk Naturalien-Kabinet van opgevulde viervoetige dieren, vogels, gekorvene diertjes en visschen, welke hij ons liet zien en nader beschreef, zoodat ik eenen zeer aangenamen morgen bij dezen belangrijken man doorbragt.'[17] Gordon had a nice garden around his house in which some plants collected in the interior were growing (White [1790] 1962:96), but no details have been found.

There is no trace of most objects in Gordon's collection. Some of the animal skins maybe were sent to Holland, but the available evidence all pertains to the period around 1780 (7.8). For the sake of curiosity, two objects which once belonged to Gordon may be mentioned here. Heller (1949:233, pl.36) wrote about 'a small drinking field cup' made of silver, inscribed 'Col.R.J.Gordon, Caap de Goede Hoop. A.D. 1784', preserved since 1939 in the Koopmans de Wet Museum, Cape Town. Two brass plates once attached to a barometer are kept in the Cape Archives. Both are engraved with a scale in fractions of an English inch. The summer plate is dated 1785, while the winter plate is inscribed 'R.J.Gordon fecit' (Forbes 1952:86, 1965:115). During his travels, Gordon used a mercury thermometer (Forbes, l.c.). He presented one of his instruments to Archibald Menzies, engaged as naturalist on George Vancouver's journey of exploration 1791-1795 (Menzies 1828, Forbes 1952:85, 1965:114). Gordon had more instruments. In his letter to J.H.van Swinden (1746-1823) of 4 February 1793 (reproduced by Gunn 1954), he mentioned having a dip-needle, compass and hygrometer (see Forbes 1965:115).

Gordon was not much of a library person. In his various manuscripts, he mentioned a few books and we may assume that he had them in his own collection. These were:

16. These items from Cook's Voyage were not mentioned by Warner (1978) nor recorded among the ethnological objects which Cook and King presented to the Public Library in Cape Town listed by Bax (1970:54 ff).

17. Best, in translation: 'He received us most kindly, told us about his travels, and showed us several rare objects from this country. Among those there was a mounted giraffe, a female, which he himself had shot. . . . The commander had a sizeable collection of natural history specimens including mounted quadrupeds, birds, insects and fishes, which he showed us and described, and we spent a very pleasant morning with this important gentleman.'

1. Buffon's *Histoire Naturelle*, probably the *Nouvelle Edition* (see 7.7).
2. A.Sparrman's *Voyage to the Cape of Good Hope* in the second English edition of 1786.
3. Vosmaer's booklet on the giraffe (1787) and possibly other installments of the same work.
4. The so-called 'Nieuwe en Nieuwste beschrijvingen van de Kaap', by which was meant the anonymous 'Nieuwe Algemene Beschrijving van de Kaap de Goede Hoop' (Amsterdam, 1777, 2 vols.) and Hop's journey published in 1778.
5. James Cook's *Voyage towards the South Pole*, London, 1777.

At the end of his first visit to the Cape, Gordon left a book to the Public Library. It was a copy of Lalande's Astronomy, which is still preserved in the South African Library, Cape Town. There is a note of dedication in Gordon's handwriting on p.22 of the book (Varley 1949:23): 'Dit werk word door den Capitein R.J.Gordon, van het regiment Schotten van de General Gordon ten dienste van den staat der Verenigde Nederlanden, aan de Publieque Bibliotheek van de Caap de Goede Hoop, ter gedagtenisse gelaten. Caap de Goede Hoop, den 1sten february 1774. R:J:Gordon.'[18]

7.2.9 *The last years*

On the morning of 25 October 1795, Gordon's body was found dead in the garden of his house *Schoonder Zigt*. Enquiries made at the time attributed this to suicide. Several reasons have been advanced, including domestic problems with his wife, his bad health, his debt of 11,000 guilders to the East India Company (later remitted) and the painful events during and after the surrender of the town to British troops in September 1795. It was a tragic end of the life of a prominent pioneer in Africa.

Gordon left behind his wife and 4 young sons (the oldest was 14 years old). The rest of his widow's life is of some significance because she was responsible for the sale or dispersal of her husband's manuscripts and possessions (7.3). After having sold the house and some goods in Cape Town in 1797, Mrs Gordon returned to Europe travelling via England to her native Switzerland. At the end of 1797 she was living in Lausanne where she earned her living by lending money at 5% interest. She then lived in La Sarraz 1803-1812, Orbe 1819-1820 and in 1826 again in Lausanne. She died there on 27 November 1831, 82 years old (Forbes 1954, Kirby 1957:254).

7.3 THE HISTORY OF GORDON'S SCIENTIFIC LEGACY

When Mrs Gordon left Cape Town in 1797, she carried with her what may be called the scientific legacy of her late husband including his drawings, journals and manuscript notes. Two days after her arrival in London, she requested some assistance to clear customs from Philip Gidley King (1757-1808), who became governor of New South Wales in 1800. King wrote two letters to Joseph Banks, both dated 27 May 1797, with some interesting information about the manuscripts. The first read as follows:

18. Translated: 'This book was left by captain R:J:Gordon, of the Scots regiment under general Gordon in service of the state of the United Netherlands, to the Public Library of the Cape of Good Hope, in remembrance. Cape of Good Hope, 1 February 1774. R:J:Gordon.'

London, May 27th 1797. Sir – For these two days past I have been assisting the widow of my late friend, Colonel Gordon, in procuring her Lodgings &c. This morning I went with her to the Custom-House, where her effects are, a part of which are detained, but as I have sent a Petition into the Commissioners, I am hopeful she will obtain permission to export them in the vessel she goes in to Calais on her way to Switzerland. The two Boxes containing his Charts, Manuscripts & Natural History of the different parts of Africa that the Colonel visited, were also searched & numbered. They are voluminous, & as far as I am able to form a judgment they appeared interesting. The number of Charts is *Ninety five*, & upwards of *600 Drawings* of Natural History, & Views in Caffraria & other parts of Africa. It is her wish to withdraw these two Boxes from the Custom house to her Lodging; her words are these – 'The Charts, Manuscripts & Drawings are arranged in some measure by the deceased for publication. He had during his life been solicited on the part of the Emperor & Stadtholder, as well as many other men of Science, to publish them during his life, this he declined, & has left them for the advantage of his family. – Had circumstances allowed of her presenting them to the Stadtholder in *Holland*, that was her intention but as she observes, the Cape now being in the possession of the English, & as the Charts convey the greatest information, which as she says are by no means known, she has thought it her duty to submit them to your inspection; and will be extremely thankful, if it is not intruding too much on your goodness, to procure her an order for their delivery from the Custom house' – As the Boxes were searched before me, I can safely assert that there is no contraband or other customable article in either of the packages. Altho' it is my intention to do myself the honour of waiting on you tomorrow morning, yet I have thought it advisable to give you this intimation of her ideas respecting these articles. I have the honor to be, with the most grateful respect, Sir, Your much obliged and devoted servant, [signed] Philip Gidley King.[19]

The reply by Banks is not preserved, but he must have asked some further particulars, to which King added the following:

London, May 27th 1797. Sir – Agreeably to your wish I have informed myself more fully respecting the Papers of the late Colonel Gordon, brought to this Country by his widow. The Charts &c. are contained in two Boxes (which I saw inspected yesterday at the Custom House). The largest Box contains, as Mrs Gordon informs me, a general Chart, smaller Charts & Views of the Interior parts of Africa seen & visited by her late husband, in all about ninety five, with a manuscript account wrote in Dutch. There are also a few bundles of family papers. The second Box contains a very full & large Book, in which are arranged upwards of 400 drawing of Natural History, appropriated to the Charts & Views. The Charts & Natural History Mrs Gordon informs me were all designed by her own husband, who drew every outline, and had them finished under his own eye. As her wish is to have these Charts &c. inspected by such persons as may be deemed adequate to judge of their consequence to this kingdom, she desires me to request in her name the indulgence of their being permitted to be withdrawn from the Custom house, where they are now lodged, without being subject to duty. I beg leave to apologize for the part I have taken in this business, to which I am alone prompted by the respect I bear to the memory of her deceased husband, & her situation as a stranger in this country, from whence it is her intention to depart with her family for her native country, Switzerland, the instant her business is finished. I have the honour to be most respectfully, Sir, Your most obedient humble servant, [signed] Philip Gidley King.[20]

From these letters it appears that there were two boxes of different sizes containing at least 95 maps, topographical drawings, manuscript notes and family papers. The latter are not

19. Original in BMNH, Botany department, Dawson Turner coll., vol.10(1), fol.138-138A, quoted by Forbes 1952:89-90, summarized by Dawson 1958:490.

20. Original in BMNH, Botany department, Dawson Turner coll., vol.10(1), fol.139-140, quoted by Britten 1914:77-78, Dyer 1948:45-46, Barnard 1950:371-372, summarized by Dawson 1958:490.

mentioned again. Maybe the boxes remained in England when Mrs Gordon left for Switzerland. Another glimpse is given in a third letter written by King to Banks, dated 7 October 1797:

Having had some business the other day with Mr Rose, I mentioned the circumstance about Gordon's Charts &c., which he had so far forgotten that he scarcely remembered the application that had been made to him, and he expressed much concern that the then pressure of public affairs made him not pay the attention to it which the subject appeared to deserve; and after expressing a great desire to obtain them, I informed him that the Charts and drawings of Natural History were in a Box under Capt. Riou's charge. He wished me to introduce Capt. Riou to him, which I did the next day; and, after much conversation, the result was that Riou was to write to Mrs G[ordon] as from himself, and to ask her what she valued the Charts &c. at, and that if the sum was any ways reasonable, Government wd make the purchase.[21]

George Rose (1744-1818) was Secretary to the Treasury from 1783 to 1801 and represented the English government. Captain Edward Riou (1762-1801), ship's captain, commanded the *Guardian* on its way to Australia which stranded some 1900 km from the Cape in December 1789. Most men perished, but Riou somehow managed to take the damaged ship back to Table Bay. Here he met Gordon and Francis Masson (Gunn & Codd 1981:297). It is unknown why he would have taken charge of Gordon's papers except a possible respect for the man and interest in Cape matters. In this letter, King mentioned only one box, but as the sizes are not recorded in any instance, not too much importance can be attached to this.

Riou died on 1 April 1801. Possibly at about that time the collections were returned to Mrs Gordon in Lausanne. There is some interesting correspondence, hitherto overlooked, between Mrs Gordon and John Pinkerton, published in 1830. Pinkerton (1758-1826) is known as an editor of geographical and historical treatises and compilations, like the *General Collection of Voyages and Travels* (17 vols., 1807-1814). Parts of this correspondence may be repeated here as it sheds some light on the endeavours to publish the journals made by Gordon during his expeditions. The letters are in French, but English translations may be found in Pinkerton (1830).

The first letter by Mrs Gordon is dated 3rd June 1803, in which she referred to one by Pinkerton of 25 May, and apparently he started the proceedings. She says to be glad to be dealing with an Englishman, as her husband had high esteem for the British, and continued:

donnez-vous la peine de relire le prospectus, et vous y verrez, Monsieur, que les journaux sont écrits en Hollandois; et je ne crois pas qu'ils fournissent plus d'un volume en quarto. Ce qui rend l'ouvrage volumineux sont les cartes, et leurs explications, les dessins des vues de l'intérieur du pays, de même que des dessins de plantes et d'animaux en tous genres: il est impossible de se former une idée de l'immensité de ce travail par un simple exposé, il faut le voir. Je serois charmée d'avoir l'honneur de vous voir chez moi; mais, en cas qu'il vous convînt mieux de les voir à Paris, je consens voluntiers à y aller moi-même avec tous les papiers, en cas que je sois sûre de votre part que nous pourrons nous arranger ensemble; ce qui ne sera bien difficile, puisque j'aurai à faire avec un honnête homme (Pinkerton 1830:268-270).

According to this letter, there appears to have been some kind of prospectus describing Gordon's papers, and Pinkerton took up the challenge. They could be published, but it is not immediately clear if the notes were ready to be printed or still needed extensive editing. Mrs Gordon and Pinkerton may have met in Paris on 28 August 1803, a date mentioned in a legal document of 1805 quoted below.[22] Pinkerton must have agreed to help Mrs Gordon to sell the manuscripts or to find a publisher. At the end of 1803, he applied to several English publishers for their consideration, like Messrs. Longman and Co., Mr White and Messrs. Cadell and Davies (Pinkerton 1830:307 note). These publishers declined, because they deemed it to be too much of a risk after the appearance of John Barrow's *Account of Travels into the interior of Southern Africa* in 1801. Maybe the price was high, as Mrs Gordon wanted some £600 for one, or £1200 for 2 volumes, as well as the possession of the original drawings. This price is given in a letter of 20 April 1804 to an unknown publisher (Pinkerton 1830:306-308).

On 27 April 1804, Mrs Gordon again wrote to Pinkerton with some instructions about the sale of the manuscripts and drawings, beginning her letter by saying that she trusts Pinkerton to know what to do best.

J'ai mis toute ma confiance en vous pour l'arrangement de ces ouvrages, et leur début: votre délicatesse et votre honnêteté doivent être mes garans que vous agirez dans tous les points pour le mieux de la chose; et partant de là, vous avez carte blanche.

1. Il me semble que le nombre des exemplaires que le libraire demande est trop considérable; car, si je comprends bien la chose, il veut avoir 3,000 exemplaires in-8vo, et 300 in-4to; et je crois qu'il faut bien du tems pour vendre autant de livres, et que cela retardera beaucoup une deuxième édition.

2. Le terme des paiemens est trop éloigné, et trop morcelé; car comment trouver à placer avantageusement de si petites sommes?

3. S'il faut attendre deux ou trois ans avant de savoir si on fera de nouvelles éditions, serez-vous encore à Paris pour veiller à ce que le libraire ne fasse que ce qu'il doit faire? et ne doit-il pas donner des cautions de ses engagemens, en cas de mort ou de faillite?

4. Au lieu des 20 exemplaires gratis qu'il veut me donner, j'aimerais mieux n'en avoir que dix in-4to, et que le surplus des dix fût ajouté en argent au premier paiement.

5. Le libraire parle du bénéfice sur une traduction Anglaise seulement; et je suis bien persuadé qu'il s'en fera une en Allamand; car on désire beaucoup cet ouvrage en Allemagne, et surtout à Berlin: il me semble donc que le même bénéfice doit être accordé pour toutes les traductions qu'il s'en ferait.

6. Lorsque toutes les traductions seront répandues dans le monde, croyez-vous encore pouvoir vendre les manuscrits? à quoi serviraient-ils à la nation qui les acheterait, si les amateurs peuvent se les procurer par le moyen de tous ces exemplaires, et des traductions que l'on en fera?

Je suis bien charmée que vous ayiez pris des arrangemens pour l'impression de toutes ces choses à Paris même, parce que vous êtes plus à portée de suivre le tout; et que rien n'est hasardé dans un pays éloigné de vous, surtout dans les circonstances actuelles.

She continued by saying that she is sending an original portrait of her husband to be engraved in France, urging utmost care because it was 'le seul trésor que je possède.' She also recommended a Mr Frédéric Schlegel who could help to make a German translation (Pinkerton 1830:309-314).

On the basis of this letter, one could assume that there was some kind of edited manuscript of Gordon's travels which was being considered by a French publisher under certain conditions. Somehow, this attempt came to nothing. The editor of

21. Cited after Forbes 1952:90-91, original in Dawson Turner coll., 10(1), f.190.

22. Pinkerton stayed in Paris in the years 1802-1805, about which he published *Recollections of Paris* (London, 1806, 2 volumes). His meeting with Mrs Gordon or his endeavours to sell the manuscripts are not recorded in the book.

Pinkerton's letters added in a note (1830:307) that following some other unpublished correspondence, late in 1804, 'the manuscripts were offered to the French government, with whom Madame Gordon endeavored to stipulate that one of her sons, then an ensign in the army, should be made a lieutenant-colonel, and the other, who was serving in the navy as a lieutenant, should be promoted to the rank of post-captain. But Bonaparte's officers were not so formed. Denon took a kind interest in the affair: there is a letter of his, stating that he had recommended the purchase to the emperor, but without success.' Once again there was an impasse.

Pinkerton next tried in England again. There is a warrant of attorney, mentioned by Forbes (1954:133), in which Mrs Gordon gave power to Pinkerton, on 26 March 1805, to 'traiter avec les libraires de Londres pour la publication des voyages en Afrique par feu son mari le Colonel Gordon ... & de vendre de plus haut prix qu'il puisse trouver, les cartes, dessins & papier, dont elle a une catalogue & reçu de sa main ... & gardera pour lui ce dont ils sont convenus à Paris le 28e aoust 1803.'[23] Pinkerton had not agreed to a simple task! There is a final letter from Mrs Gordon to Pinkerton of 19 April 1806 in which she does not agree to delay some time until there are better opportunities, and assents to a public sale of the papers if that would be the only possibility (Pinkerton 1830:339-341). Pinkerton then asked the English government a second time, in a letter of 14 May 1806 to William Windham (1750-1810):

> Clement's Inn, no.7, May 14, 1806. Sir – I was duly honoured with your letter of the 27th March with regard to the papers, maps, and drawings of Colonel Gordon, formerly commandant of the Cape of Good Hope, in which you are so good as to say you shall at a future opportunity take the opinion of competent judges how far they might be proper objects to be purchased at the national expense. I am well aware, with the public at large, of the multitude of your avocations, and have not therefore wished to press the matter; but having just received an earnest letter from Mrs Gordon in Switzerland accusing me of unnecessary delay, I hope you will pardon me taking this liberty. I have myself some skill in geography, and if I had not thought these papers of great importance to this commercial country, and the interest of its oriental colonies, I should not have taken charge of them. I suppose that Mr Faden or Mr Arrowsmith the geographers would readily inspect them, and give a just and candid report. I have no doubt that the acquisition would be of lasting advantage, and be esteemed honorable to an enlightened administration who should order it to be made. But on this subject I must refer to the little memoir which I had the honour to send you and remain with the greatest respect &c. [signed] John Pinkerton.[24]

The results of this endeavour by Pinkerton must have been negative, because nothing more is heard about it. We know, however, that at least the drawings now known as *Gordon Atlas* were bought by the Marquis of Stafford. There is a handwritten note on one of the first pages in the volume on Birds in the Gordon Atlas stating that it was 'A collection made by Colonel Gordon of Scotch family settled at the Cape & highly esteemed by the Dutch government. It was intended to be sold at a public auction but bought by the Marquis of Stafford about 1802.'[25] The uncertainty about the date, and its obvious incongruity in view of the above, show that this note must have been added at some later date. I suggested earlier (1980:9, 1981:124) that the drawings changed hands between 1806 and 1808. The exact date has now been ascertained, again through a letter in the Pinkerton correspondence. The Marchioness of Stafford wrote to him:

> Cleveland House, March 30th, 1810. ... I beg to express my thanks to you for the offer of the Gordon Collection of drawings &c &c. Though I do not particularly collect drawings of that kind, yet the moderate sum you mention, of one hundred guineas, induces me to avail myself of this, provided you continue disposed to part with it.

At last somebody interested in purchase! Hence the collection was bought by Elizabeth, the wife of the second Marquis of Stafford, George Granville Leveson-Gower (1758-1833). We must assume that the collection at that time included both the present Gordon Atlas and the manuscripts now kept in Johannesburg.

The collection remained in the family. The library of Stafford House, owned by the Duke of Sutherland (a title acquired in 1833), was auctioned by Sotheby's in London in 1913. The sales catalogue for 30 October 1913 gave one lot 'Nr.445. A collection of 387 very clear original coloured drawings of the Quadrupeds ... mounted and bound, in 4 vol. half red morocco' (Sotheby 1913:40). The number of drawings mentioned and the number of volumes show that the maps and topographical drawings were not included in this lot. It was bought by Maggs Bros. in London for £690 (Britten 1914:77). Somehow they too acquired the additional maps and drawings and offered all six volumes now known as the Gordon Atlas for sale for £1250 (Maggs Bros. 1914). Through the initiative of professor E.C.Godée Molsbergen, the collection was brought to Holland. It was first bought by the booksellers Martinus Nijhoff in The Hague (Molsbergen 1914:7), after which the money was raised for one third by the Dutch government and two thirds by a commission of people chaired by Prof. Molsbergen (*Jaarverslag Rijksmuseum*, 1914:30). The Gordon Atlas thus came to the Rijksprentenkabinet, part of the Rijksmuseum in Amsterdam, where it is still carefully preserved.

At that time nothing was known about the existence of journals or manuscript notes by Gordon. Apparently these were loaned some time to the County Archives in Stafford, where they were available to the public but never consulted. In 1964 they were re-discovered by Dr A.J.Kieser, Pretoria's Chief Archivist, as a result of a routine enquiry (Clement 1965). This collection of manuscripts was auctioned on 4 April 1979 at Christie's in London (Christie, Manson & Woods 1979, lot 73).[26] It was bought on behalf of Mr H.F.Oppenheimer, in whose Brenthurst Library in Johannesburg they are still kept.

7.4 GORDON'S PRESERVED MANUSCRIPTS

Gordon never published any of his observations or drawings. Some notes and drawings were sent to Holland, where they

23. Archives Cantonales, Lausanne, DG 111-6: Louis Fevot, Notaire, Registre 1 Octobre 1804 – 29 Mars 1806, fol.172-173 'Procuration donnée par M.me la veuve Gordon à Mr.Pinkerton.' Cited in translation by Forbes 1954.

24. Cited after Theal 1899,V:420-421, original in Public Record Office, London.

25. On the basis of this document, the date of the transaction was given as 1802, by Molsbergen 1914:3, Tuyn 1966:75 and Cave & Rookmaaker 1977:139.

26. This was the first public auction which I ever attended, without intention of bidding. The possibility to view the lots beforehand had given me a valuable, though brief, opportunity to look at the manuscripts in the original. The winning bid for £10,000 was made at 11 h 48 am.

were used, with Gordon's approval, in some articles by Allamand (7.10). However, Barnard (1950:370) stated that Gordon completed a manuscript for publication. Some hints about this were also included in 7.3. If this is true, there is no trace of it. None of the available papers could in any way be described as a completed manuscript. Yet, Gordon at least had some plans. King (1785:482) could 'congratulate the public on the information I have received of his intentions to give the world, from his own hand, a history of his travels.' White ([1790] 1962:96) likewise assured Gordon's intention 'to publish the observations and remarks which have been the result of his researches.' A review of another book included in the *Mercure de France* (Anon. 1790) even reported that the work by Gordon was being printed in England! The plans were made, but it is unlikely that a publishable manuscript was prepared during Gordon's life.

It is not known how many manuscripts, notes, letters and drawings Gordon left at the time of his death in October 1795. However, much of his material is known to exist. First and foremost in importance is the collection of drawings known as the *Gordon Atlas* described in 7.6, and then the collection of notes and drafts known as *Gordon Manuscripts* described in 7.5. Besides this, there is a variety of separate manuscripts, letters, drawings and maps, which will be listed below.

7.4.1 *Correspondence*

Only a few letters written by Gordon have survived.[27] His most important and valued contact in Holland was Hendrik Fagel (1706-1790), 'griffier' (secretary) to the States General. Seven letters written by Gordon to Fagel have survived. Those dated 10 April 1778 and 24 April 1779 contain long accounts of the second and third expeditions in the interior with many ethnographic, geographic and zoological details. The later letters are much more brief and business-like. From some personal notes in these letters, it is clear that Gordon knew the Fagel family. On several occasions, he asked to convey greetings to various family members, especially 'Mrs. the widow Fagel', possibly the wife of Hendrik's son François who died in 1773 when only 33 years old and practically of the same age as Gordon. There is no trace of any letters written direct to Vosmaer or Allamand, although those would have been expected (see 7.9, 10). The following letters are known to survive. This list does not include the drafts preserved among the 'Gordon Manuscripts' which are detailed in 7.5:

1. To Admiral George Keith Elphinstone, 14 June 1795, kept in the Public Record Office, London (quoted by Theal 1897,I:45 and Barnard 1950:412-413).
2. To Hendrik Fagel Sr., 7 letters kept in the Fagel-Archief in the Algemeen Rijks Archief, The Hague, Holland:
(a) 10 April 1778, 9+4 pp., no. 2515 (b) 24 April 1779, 12 pp., no. 2533 (c) 13 May 1779, 2 pp., no. 2533 (d) 23 January 1780, 1 p., no. 2543(1) (e) 10 March 1780, 1 p., no. 2543(2) (f) 14 April 1783, 1 p., no. 2581(7) (g) 1 July 1784, 1 p., no. 2600(11). Only one reply from Fagel to Gordon is known, dated 2 November 1779, 3 pp., no. 2533.
3. To Joachim van Plettenberg, 2 letters also signed by others, in Collection Plettenberg No.4, Algemeen Rijks Archief, The Hague, dated 26 May 1781 and 23 October 1782.
4. To J.H.van Swinden (1746-1823), 4 February 1793, 2 pp., in the Library of the University of Leiden, BPL 755 (reproduced by Gunn 1954, 2 pls.).
5. To Willem V, 30 June 1784, 3 pp., in Koninklijk Huisarchief, The Hague, inventaris Willem V, 18, no. 335 I.

7.4.2 *Manuscripts*

Only a few manuscripts by Gordon have been found, none of zoological interest.

In Algemeen Rijks Archief, The Hague

– 'Korte stellingen omtrent de meteorologie in het generaal: beneffens eene schets van het weer aan de Caap de goede hoop in het bysonder.' Described by Barnard (1950:367) and Forbes (1965:114). There is a copy among the 'Gordon Manuscripts.'

– 'Vertoog van R.J.Gordon over bevelvoering, 1783' (Plettenberg Collection, no 38).

In Cape Archives, Cape Town

– 'Register van alle zodanige plans en kaarten, als zij ter politique Secretarije van de Kaap de Goede Hoop bevinden. Opgesteld in 't Kasteel de Goede Hoop door R.J.Gordon, 1794' (VC 245), see Barnard (1950:442).

In Koninklijk Huisarchief, The Hague

– '1e Memorie van den hr. Col.Gordon de pepinière concernerende', 1789

– '2e Memorie' (etc.) 1789, both in Inventaris Willem V, 18, no.335 I, copy in Cape Archives, VC 123.

7.4.3 *Drawings*

The separate drawings generally are without signature and the attribution is based on style or similarity to sketches in the Gordon Atlas. They can be listed here.

Africana Museum, Johannesburg

Kennedy (1967,III:111) attributed four drawings to Gordon representing 3 animals and 1 Hottentot. These three animal drawings were found in a Wiesbaden antiquarian dealer (Adams) and purchased for the Africana Museum. The attribution was based on stylistic characteristics, but the evidence is very weak. The Hottentot drawing and another drawing in the same museum may be mentioned as well.

– No.61/1247: a depiction of a kudu (*Tragelaphus strepsiceros*) different from that in GA 162. Although the drawing probably was made in the late 18th century, it cannot be connected wth Gordon's work, except maybe through a connection with the following items. Next to the animal on the drawing, there is the following text: 'Koedoo, so woorden deese gedierde genoomt in het zuider gedeelte van Affrica. Is veel grooter als een paerd, sijne hoorens sijn bijna twee eellen lang, het woord ook gegeeten, is als beeste vlees, so woord hij ook onder de soort Hartebeesten gereekent, is geen quad gedierte als hij mensen merkt, dann gaet hij op het loopen en loopt vast harter als een paerd, moet met goede paerden gejaegt woorden.'[28]

– No.61/1248: the animal on this drawing looks like that on GA 160 of Gordon's 'onbekende gaselle' (*Hippotragus equinus*). However, the colour differs, being a very distinct light blue, with white belly and brown legs. This suggests that it was made by somebody who did not

27. Enquiries were made at several European libraries. Negative replies came from British Library, London; Royal Society, London; Bibliothèque Nationale, Paris; Muséum National d'Histoire Naturelle, Paris; Bibliothèque Publique et Universitaire, Geneva; Oesterreichisches Staatsarchiv, Vienna. A search through the collections in Holland brought no results except as listed.



Fig. 19 Kudu *(Tragelaphus strepsiceros)* contemporary to Gordon's drawings (see 7.4.3, Africana Museum 61/1247).

understand the difference between the roan and the bluebock. The drawing was discussed by Mohr (1967:77) who doubted the attribution to Gordon or an artist in his service. The text was written in a hand similar to that on 61/1247, as follows: 'Blauwe bok, so worden dese soort van Boke genoemt binnen Affrica, an Cabo de goede hoop. Sijn vell is blauwagtig, eene maane op den hals, twee kromme hoorens, geelagtige ooren, swart en witt om de kop, efen als hier te sien, bruijne beene, swarte staert, witte buijk, sijn hoogte van de grond tot op de kop is bijna 4 voeten.'[29]

28. Africana Museum 61/1247, translated: '*Koedoo*, this is the name of these animals in the southern part of Africa. It is much larger than a horse, its horns are almost 2 ells long. It is eaten and tastes like a wildebeest, and is counted among the species 'hartebeests'. It is not a bad animal and if it sees people, it runs away and runs faster than a horse, it must be hunted with good horses.'

29. Africana Museum 61/1248, translated: '*Blauwe bok* (blue bock), this is the name of this kind of bock in Africa, at the Cape of Good Hope. Its skin is blueish, with a mane on the neck, two curved horns, yellowish ears, black and white on the face as shown here, brown legs, black tail, white belly, its height from ground to head is almost 4 feet.'



Fig. 20 Roan *(Hippotragus equinus)* labelled as a bluebock, contemporary to Gordon's work (see 7.4.3, Africana Museum 61/1248).

Fig. 21 Gordon Atlas (GA 160): Roan *(Hippotragus equinus)*.



Fig. 22 Eland *(Taurotragus oryx)*, sometimes attributed to R.J. Gordon (see 7.4.3, Africana Museum 61/1249).

– No.61/1249: showing an eland (*Taurotragus oryx*) different from GA 163. The handwriting resembles that on 61/1247. The text is as follows: 'Eijland, word dese soort diere genoemt, is so groot als een groote oss, is seer goed om to eeten, seer starke borst, men vind troppe bij malkanderen van 100. en 50. / met goede paerde moeten sij gejaagt worden. Dese dieren sijn niet te tellen bij die soort die men in Polen en in Rusland vind, dewelke men Eelende noemt en gants eene besondere aart en weesen hebben.'[30]

– No.61/384: Hottentot woman and child, on paper with watermark 'J.Whatman 1820'. Possibly this was a later English copy of a drawing in the Gordon Atlas.

– No.72/1021: showing a bontebok (*Damaliscus dorcas*) different from GA 164. It is not signed, but on the right side there is written 'Dessinée a 1 heure la nuit' to which was added, but erased, 'dans la citadel du Cap.' The text is in a handwriting similar to that on the animal drawings above, as follows: 'Bonte Bok, dese soort van wild gedierde woorden geschooten in verscheyde lands kontreijen binnen Affrica van de Caap. Het is seer goed om te eeten, en sijne velle met hoorens worden in andere landen gesonden, om de raritijten en couleur. Sijn hoogte van de grond tot op de kop is 4 voeten. Het is een seer schuw wild.'[31]

30. Africana Museum 61/1249, translated: '*Eijland* (eland), is the name of these animals. It is large like an ox, and tastes well, with a strong breast, it is found in groups of 100 or 50 animals. It must be hunted with good horses. It must not be counted among that species which is found in Poland and Russia, which is called eland ('eelende') and which is very different.'

31. Africana Museum 72/1021, translated: 'Bonte bok, this kind of animal is shot in several parts within Africa from the Cape. It is very nice to eat, and its skin and horns are sent to other countries, due to its rarity and colour. It is 4 feet from the ground to its head. It is very shy.'

(b) *Brenthurst Library, Johannesburg*

This library has two drawings without text (Art.144d), showing an eland (*Taurotragus oryx*) and a zebra (*Equus zebra*). While these should belong to the same period as the Gordon Atlas, an artistic connections appear quite unlikely.

(c) *Library of the University of Amsterdam*

Among the papers left by Petrus Camper (1722-1789) in the Manuscript room of the above library (no.A X), there is a drawing of a black rhinoceros (*Diceros bicornis*). It is an obvious copy of GA 205. Camper had a special interest in the rhinoceros and he was the first to differentiate the African from the Indian species (Visser 1985:39, Rookmaaker & Visser 1982).

(d) *British Museum, London*

There are 4 drawings related to the work by Gordon in a volume entitled 'South Sea Voyages, Drawings & Prints, vol.I' (Add.Mss.23920). They were discussed by Forbes (1952). The volume in which they were included, connected with Cook's first journey, was documented by Joppien & Smith (1985,I:69), who attribute the four drawings made at the Cape of Good Hope to 'J.Schumaker, none of which are associated with any of Cook's voyages.'

– f.23 'A N.W.view of the Rogefeldt from the Hantam', a scene drawn in a place about 10 miles east of Calvinia. Illustrated in Forbes (1952, 1965, fig.35), without counterpart in the Gordon Atlas.

– f.24 'Bosch-man living in the Roggeveld at the Cape of Good

Fig. 23 Bontebok *(Damaliscus dorcas)* contemporary to the work by Gordon (see 7.4.3, Africana Museum 72/1021).



Fig. 24 Eland *(Taurotragus oryx)*, sometimes attributed to Gordon (see 7.4.3, Brenthurst Library, ART 144/2 d).

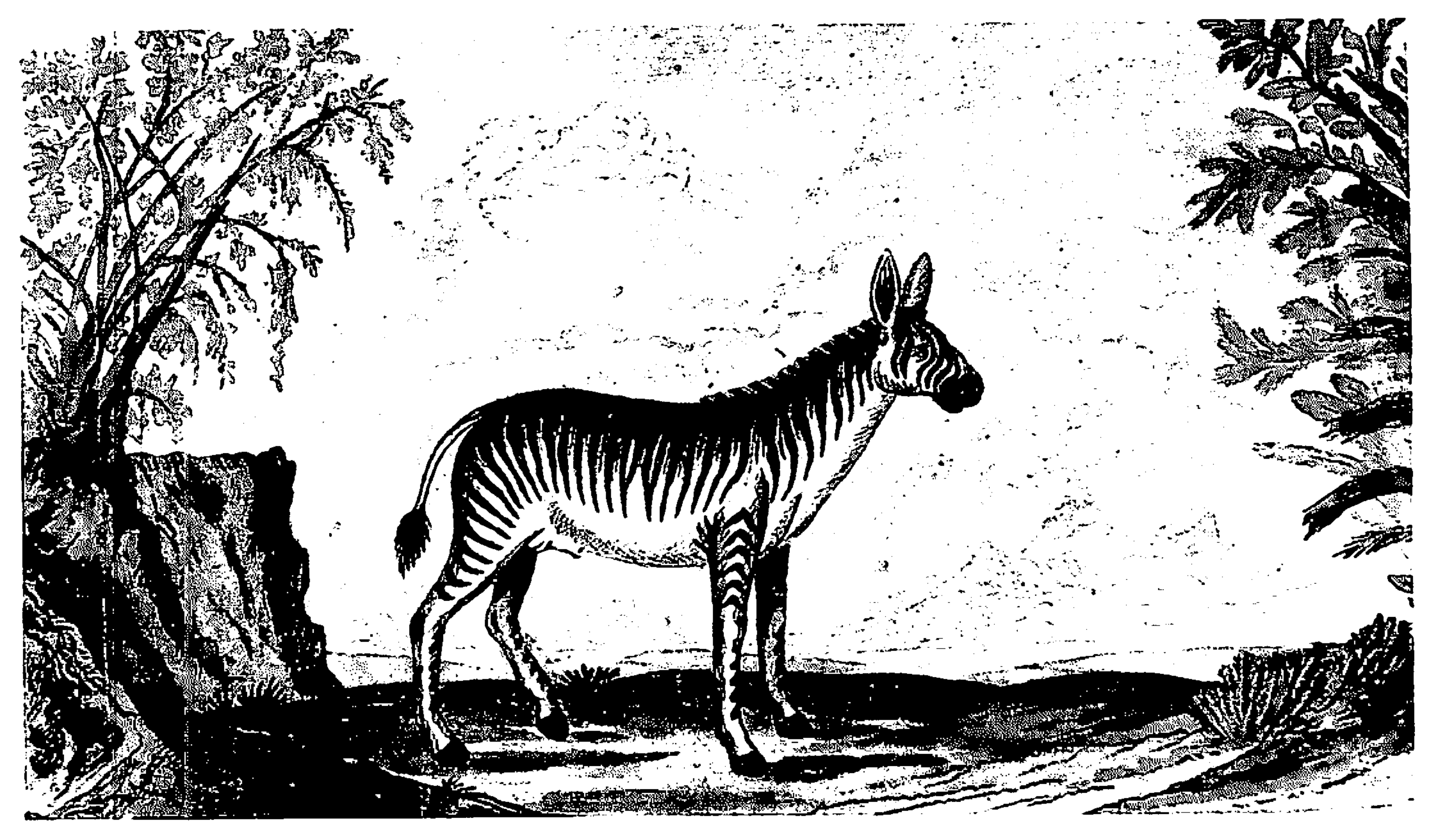


Fig. 25 Zebra *(Equus zebra)*, sometimes attributed to Gordon (see 7.4.3, Brenthurst Library, ART 144/1 d).

Hope', illustrated by Forbes (1952, 1965, fig.38), not found in the Gordon Atlas.

– f.25 'Bosch-vrouw living in the Roggeveld at the Cape of Good Hope', illustrated by Forbes (1952, 1965, fig.37), similar to GA 84.

– f.26 'Amaqua Hottentot', illustrated by Forbes (1965, fig. 36) and Joppien & Smith (1985:9), similar to GA 85.

(c) *Nederlandse Topografische Dienst, Delft*

Koeman (1952a,b, 1952:75) reported the existence of 5 topographical drawings, somewhat similar in style to those in the Gordon Atlas.

There are some other drawings similar to those in the Gordon Atlas found among the work of Paterson, Forster and Swellengrebel. They are discussed in the respective chapters, while some notes on the artist are found in 7.6.

7.5 THE GORDON MANUSCRIPTS

The history of this collection of notes and drafts from the estate of Gordon was discussed in 7.3. It used to be kept in the Staffordshire County Archives until it was bought for the Brenthurst Library, Johannesburg at an auction by Christie's in 1979. A good title for this rather varied collection might be the '*Gordon Manuscripts*' (GM). The contents were described in the 1979 sales catalogue (Christie, Manson & Woods 1979:33-34) and may be briefly listed here with emphasis on the zoological items. The order of the contents is not fixed and the sales catalogue does not always give the original title. It may be mentioned here that, although I was able to view the collection briefly in 1979, I have not been able to study it accurately in its entirety.

GM 1 Journal of the second expedition, in 2 parts: 'Joumaal van een reis door een gedeelte van het zuiden van Africa door R:J:Gordon Capitein gedaan in het jaar 1777 beginnende aan de Caap den 6 October,' and 'Vervolg van het Joumaal van den reis van Gordon in het zuidergedeelte van Africa beginnend 6 oct: 1777.' Total 83 leaves, folio.

GM 2 Journal of the third expedition: 'Joumaal der derde reis door een deel van zuidelijk africa gedaan van 28 aug: 1778 tot 25 Jan: 1779. R:J:Gordon.' Total 20 leaves (3 blank), folio. The narrative starts on 18 September.

GM 3 Journal of the fourth expedition, in 2 parts: 'Joumaal van de vierde reyse van Captein R:J:Gordon in her zuidelijke gedeelte van Africa begonnen den 27 Junij 1779 van de Caap de Goede Hoop' (37 leaves, 2 blank, large folio), and 'Vervolg van 't Joumaay van de reis in 1779' (27 leaves, folio). In the first part there are 3 smaller pages with notes on Levaillant, e.g. about the giraffe. At the end of the journal there are some observations about the ostrich (2 pp) and about some mammals (7 pp).

GM 4 The Journal of the fifth and last expedition lasting from 19 November 1785 to 12 March 1786. Text in two columns. It is kept in a folder with the incorrect title 'Voyage du 6 Octobr: 1777 au 8 Mars 1778, Complet no.1' (22 leaves).

GM 5 'Metereologisch joumaal, bijna dagelijks bijgehouden tussen 22 sept. 1789 en 21 juni 1792' (81 leaves, folio). There are 7 additional pages listing 24 stones sent to prof. Horace Bénedict de Saussure in Switzerland, dated 1789 (in French).

GM 6 Description of the route from Geisiqua to Heisi (1 leaf).

GM 7 Copy of a letter written to Hendrik Fagel in 1779, not in Gordon's handwriting, but signed. The original is dated 24 April 1779 (see 7.4.1).

GM 8 'Description of a Camelopard killed at the night of the 12th of October 1779' (1 leaf), written in English by Gordon.

GM 9 Observations about A.Sparrman's *Voyage to the Cape of Good Hope* (9 leaves of various sizes), in English. These notes are very critical and don't seem to do justice to Sparrman's achievement. They were mentioned by V.S.Forbes (1975:12) in his edition of the work by Sparrman as well as in some of his footnotes of that book.

GM 10 Three separate items: (a) 'Particularités relatives à quelques hordes Hottentots' (10 leaves) with a few comments on mammals; (b) 'Observations geographiques & topographiques sur diverses parties de l'intérieur de l'Afrique' (82 leaves). The notes are all in Dutch.

GM 11 Various notes on routes in the interior (82 leaves).

GM 12 Measurements of the land around Muisenberg (4 leaves).

GM 13 'Observations et reflexions sur divers sujets' (21 leaves). This folder includes a letter from John Hunter to William Paterson with enquiries about the kangaroo, 4 and 15 February 1791.

GM 14 'Observations sur le règne mineral' (13 leaves).

GM 15 'Collection de mots des divers languages de l'Afrique méridionale' (12 leaves).

GM 16 'Renseignements et descriptions de plusieurs animaux' (58 leaves, various sizes). These are notes, mainly written by Gordon, but some in other hands. The complete texts of these zoological notes were reproduced in appendix 2 of Rookmaaker (1979:256-292). A few remarks are added at the end of this paragraph.

GM 17 Several draft letters to various correspondents: (a) Three letters to 'Monsieur le Comte' dated 1786, which mention Frans Boos and the Austrian emperor Franz Joseph. The count probably was Johann Philip Graf Cobenzl. He wrote to Boos in Cape Town on 30 December 1786 expecting a letter from Gordon not yet received (Giese 1962:87). (b) One letter to an anonymous French naturalist, 8 April 1789. (c) Letter to Monsieur Le Bailli, probably Jean-Sylvain Bailly (1736-1793) as suggested by Cullinan (1982:195, the letter is illustrated).

GM 18 Corrections, not in Gordon's hand, probably to the *Journal Historique* of the Abbé de la Caille.

GM 19 'Observations meterologiques faites au Cap de Bonne Espérance' (9 leaves), 1751 and 1757, not by Gordon.

The most interesting set of notes to the zoologist is certainly that contained in the folder GM 16. There are long descriptions including measurements of the hyena, elephant, rhinoceros, hippopotamus, giraffe and the steenbok. There are some short notes about various species, all written by Gordon, called by him 'blinde mol, blesmol, stekelvarken, aardvarken, muskeljaatkat, strandwolf, klipspringer, duiker, grysbok, blauwbok, pasan.' There are 5 descriptions written by somebody else and probably sent to Gordon, about the 'aardvarken, Caapsche stink bunsem, ratel, wilde kat and reebok' (in Dutch). The notes on the aardvark were written about a specimen caught in 1783. These contributions are not signed, but, there is too, written in presumably the same hand, a 'Verhandeling van verscheyden siekten alhier in Africa zig bevinden aan Paarden, Ossen, schaapen, bokken en varkens' signed by J.H.Brugman (unknown).

One very interesting document included in GM 16 is a list of South African animals. It was written by Gordon, but there is no date. The text is just a list of names, as follows:

Namen der /viervoetige/ dieren van het zuidelijk africa
eenhoevigen: zebra, wilt paart van de Caap
coagga, wilde esel sogenaamt
en koei en bul horens: de buffel
sogenaamde eland
sogenaamd hartebeest de bubalis
de ram alleen horens: coedoe, rhebok, rietrebok, rode rebok, oerebi, steenbok, duiker, bleekbok, grijsbok, klipspringer, bosbok, numgotje [or] kleine blauwbokje.
beiden horens: sogenaamde gemsbok, blaauwbok, springbok, noe
beide horens: cameelpaard
hippopotamus, rhinoceros, oliphant,
ijservarken
bosvarken geen incisiven
wild varken incisiven
aardvarken zijnde een miereneter
sogenaamde wolven
twe soorten: hyaenas een ruig en swart
de andere glad ros en bruin gevlakt
de jakhals, onse vos byna.
de wilde hond, mogelijk de Indische jakhals lopende bij dag, otter, de leeuw, panter, once, verscheide soorten muishonden of ichneumons, tijgerboschkat en andere wilde katten, rode kat [or] courak koulak, baviaan, grijse aap, rotten en muisen, springhaas of gerbo, gratje twe soorten, 4 soorten mollen,leguaan, cameleon, en soorten hagedissen. 4 soort kleine en grote landschild-padden, 1 soort water schildpadden.

This document is a combination of an enumeration and a commentary. It can be translated in the same way, with my notes and identifications added in square brackets.

Names of the quadrupeds in southern africa.

Animals with one hoof: zebra, wild horse of the Cape [*Equus zebra*] and 'coagga' or wild ass [*Equus quagga*]

Both female and male have horns: the buffalo [*Syncerus caffer*], so-called eland [*Taurotragus oryx*], so-called hartebeest or bubalis [*Alcelaphus buselaphus*].

Only the male has horns: kudu [*Tragelaphus strepsiceros*], rhebok [*Pelea capreolus*], reed-reebok [*Redunca arundinum*], red reebok [*Redunca fulvorufula*], oerebi [*Ourebia ourebi*], steenbok [*Raphicerus campestris*], duiker [*Sylvicapra grimmia*], bleekbok [now considered conspecific with the steenbok], grijsbok [*Raphicerus melanotis*], klipspringer [*Oreotragus oreotragus*], bosbok [*Tragelaphus scriptus*], numgotje or small bluebock [*Philantomba monticola*].

Both horns: so-called gemsbok [*Oryx gazella*], bluebock [*Hippotragus leucophaeus*], springbok [*Antidorcas marsupialis*], wildebeest [*Connochaetes gnou*].

Both horns: camelhorse [*Giraffa camelopardalis*], hippopotamus [*Hippopotamus amphibius*], rhinoceros [*Diceros bicornis*], elephant [*Loxodonta africana*], ironpig [*Hystrix africaeaustralis*], bushpig, without incisors [*Potamochoerus porcus*], wild pig, with incisors [*Phacochoerus aethiopicus*], aardvarken which is an anteater [*Orycteropus afer*], so-called wolves [*Crocuta crocuta*].

Two kinds of hyenas, one is shaggy and black [*Proteles cristatus*], the other is smooth, red and brown spotted [*Crocuta crocuta*, again?].

The jackal, like our fox [*Canis mesomelas*].

The wild dog, almost like the Indian jackal which is active by day [*Lycaon pictus*]; otter [?*Aonyx cristatus*], lion [*Panthera leo*], panther [*Panthera pardus*], once [probably *Acinonyx jubatus*], several kinds of muishonds or ichneumons, tigerbushcat [*Felis serval*] and other wild cats, red cat or courak koulak [*Felis caracal*], baboon [*Papio ursinus*], grey monkey [*Cercopithecus aethiops*], rats and mice, springhaas or gerbo [*Pedetes capensis*], two kinds of gratje [one is *Suricata suricatta*, the other not clear], 4 species of moles, monitor, cameleon, and different lizards, 4 species of small and large turtles and one kind of water-tortoise.

7.6 THE GORDON ATLAS

7.6.1 *Contents*

The Gordon Atlas is a collection of drawings preserved in the Rijksprentenkabinet, Rijksmuseum, Amsterdam.[32] Its history has been told in 7.3. The drawings are bound in 6 volumes, half leather, inscribed on the spine: 'The Gordon African Collection', above which are shown the Arms of the Duke of Sutherland surrounded by the garter. This garter was granted to the second Duke of Sutherland on 11 March 1841, hence the volumes must have been bound after that date. Volumes 1 and 2 bear the title 'Maps, Plans, Etc.I' and '... II' (size: 70,5 x 98,5 cm), volume 3 has the title 'Men-Reptiles-Fishes', volume 4 'Quadrupeds', volume 5 'Birds', and volume 6 'Plants' (all size 68 x 50 cm).

There is a total of 455 maps and drawings, almost all coloured. The volumes 1 and 2 contain 16 maps of South Africa, 52 topographical and 25 ethnological drawings. The other volumes include 114 drawings of mammals, 110 depicting birds, 30 depicting other animals and 108 with plants. The plants were identified by Dyer (1949). The drawings are numbered consecutively in pencil in the volumes. The notes which follow in this section pertain specifically to the zoological drawings which were studied to prepare the present work.

The execution and presentation of the zoological drawings in the Gordon Atlas is far from uniform. This makes a general description of all items together rather cumbersome, as every rule has at least a few exceptions. Most drawings are watercolours, a few were done in ink or pencil only. Most mammals and birds have some indication of their environment, if only a bush in the corner or a branch to perch on. In some cases the background is filled with a more elaborate landscape. Most species are depicted on only one drawing, sometimes on two, often a sketch and a more finished product. The rhinoceros, hippopotamus, hyena and giraffe are shown on a larger number of drawings. Most drawings, but certainly not all, are surrounded by a coloured edge. The title or text is often written beneath the lower edge, sometimes within the frame. In case of mammals, there often is a scale indicating the height of the animal. These scales and the measurements in the text are always presented in Rhynland feet (31,4 cm) and inches (2,62 cm). Notwithstanding this variety in execution, the drawings still look reasonably similar in style. There are only a few oddities in this context. Some of the latter represent animals unknown in South Africa and they must have been given to Gordon by his visitors (7.6.4).

Only a few zoological drawings show a date which is here listed (the number in brackets referring to the number of the drawing in the Gordon Atlas):

Cape Town, prior to the second expedition, 1777:
1 July (133), 2 July (132, 136), 17 July (138), 2 August (217), 6 August (227), 15 August (141), 16 August (236), 1 September (232), 1777 only (165).

Second expedition, 1777:
18 October (126), 20 November (197, 200), November (189); 1778: 27 January (198), 30 (!) February (164).

Cape Town, interval between expeditions, 1778:
10 July (216).

Third expedition, 1778:
6 October (321), 11 October (185), 14 October (183), 16 October (184, 223), 22 October (224), 24 October (305), 2 November (205), 7 November (295), 8 November (311), 13 November (255), 14 November (240, 281), 16 November (309), 17 November (298), 10 December (213), 14 December (103, 263), 30 December (259).

Fourth expedition, 1779:
30 October (104).

These dates, as well as a few indications in other sources, show that most drawings were made in the period between July 1777 and the end of 1779. The notes on the drawings probably were written in the same period. Clearly, however, Gordon later added both drawings and annotations to those present.

7.6.2 *The Artist*

It has been a long-standing question which artist was responsible for the drawings assembled as the Gordon Atlas. The issue is complicated by the shortage of pertinent records, the necessary comparison with other contemporary collections (often badly recorded too), and the difficulty to rely on stylistic characteristics. I shall first examine the available evidence and the various opinions which have been advanced.

The Atlas does not contain any signatures or other indications about the artist. Most early writers like Britten (1920:49), Dyer (1949:51), Barnard (1950:373) and Lysaght (1959:264) attributed all drawings to Gordon himself. Yet even at that time there were known some references about a draughtsman in Gordon's service, but those were too general to be of any help. Paterson (1789:26), in his account of the second expedition, mentioned an accident which happened to 'a draughtsman of Captain Gordon's who was in the waggon.' Allamand (1781:58) mentioned 'un soldat qui lui a servi de dessinateur.' Gordon himself, in his letter to Fagel of 10 April 1778, wrote about a 'soldaat van mijne compagnie' ('a soldier of my company'). No name could be attached to this assistant. On the other hand, there was the evidence of Mrs Gordon who (in the letter by King to Banks, 27 May 1797, cited in 7.3) claimed that 'the charts & natural history ... were all designed by her own husband, who drew every outline, and had them finished under his own eye.'

The first clue about the possible identity of Gordon's draughtsman was provided by A.Hallema (1951) in his discussion of the drawings connected with the journey of Hendrik Swellengrebel in 1776-1777. Two of those watercolours were signed by Johannes Schumacher. Hallema (1951:19) compared those drawings with the Gordon Atlas and found a certain similarity between the two collections both in artistic capability and technical execution regarding the procedures and shades of colour. Hallema did not have reason to take the next step, i.e. to suggest that the Gordon Atlas too could be attributed to Schumacher. That possibility was first mentioned by Forbes (1952:93) and again by Forbes (1965:115) and Nix (1974).

The discovery of the expedition journals among the Gordon Manuscripts gave more certainty. They showed that Schumacher accompanied Gordon on all 4 expeditions after 1777. A few remarks in the journals reveal that Gordon was not always

32. Many data included in this section were published in a different form in Rookmaaker (1979, 1980, 1981). All plant drawings in the Gordon Atlas were identified by Dyer (1949). There has been objection to the name 'Atlas' and the substitution of 'Collection' was suggested. The term *Atlas*, however, was not only used for collections of maps, but also of drawings and prints (Rookmaaker 1981:123). The name Gordon Atlas is now well established.

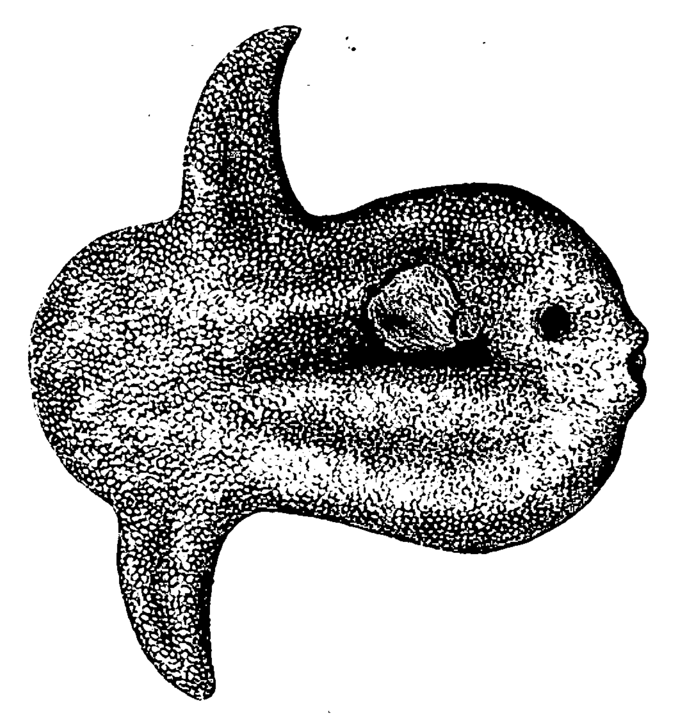


Fig. 26 Gordon Atlas (GA 118): Sunfish *(Mola mola)*.

particularly happy with Schumacher's company. On 21 November 1779, for instance, he sent Schumacher ahead 'omdat sijn kop op hol was, so door manquement aan drank, als de langheid der reyse ... sijnde blij van Schoemaker ontslagen te sijn, die het ongedult selfs was' ('... because he could not think clearly, caused by the shortage of drink and the length of the journey ... being happy to get rid of Schoemaker, who was too impatient'). H.Cloete wrote to Swellengrebel about Gordon's fourth expedition with the remark that 'de aan Uwedl. bekende schilder Schoemacher is eenige tijd op deesen togt bij gem. Heer Gordon geweest, maar tusschen beyde door niet al te favorable behandeling ook wel eens weg geweest' ('that the artist Schoemacher who is known to you, accompanied Gordon for some time on this expedition, but in between he sometimes left due to the infavourable treatment') (Schutte 1982a:53).

Johannes Schumacher, or Johan Schoenmaker in Dutch, [33] did not leave much trace about his life. Born in Rodenburg, Germany, he sailed to the Cape of Good Hope in 1770 on board the *Vlissingen*. According to Forbes (1965:60), his name appeared 'in the Cape Muster Rolls for 1770 ... He is listed as a soldier, Johan Schoenmaker of Rodenburg, in the company commanded by Major Hendrik van Prehn. In 1778, before the departure of the latter from the Cape, he transferred to the Company commanded by Captain R.J.Gordon in which he remained until 1781. In 1782, he is described as an assistant in the armoury in which capacity he continued to be listed until 1789.' His further life is not known. Willcox (1986:33) assumed that Schumacher was the 'old German draughtsman, who resided in the vicinity' visited by George Thompson ([1827] 1967:138) in July 1823 in the Cango Caves.

Before continuing, it must be mentioned that two other names were advanced for Gordon's artist. First, Taurinus (1800,II:333) claimed that he met in 1781 'einer von den Kolonisten, ein lustiger Hannoveraner, namens Mardens', corporal in the garrison, who 'zeigte uns über 200 Meilen Land von dem Kap, das er bey seinen Reisen aufgenommen hatte' (meaning that he made a map?).[34] One wonders where the information came from, considering that the account by Taurinus is generally believed to be a fabrication. Secondly, MacOwen (1886:xli) mentioned F.P.Oldenburg (see 8.4.1), but as he died in 1774, his involvement with Gordon must have been very limited.

It would be too easy to attribute all drawings in the Gordon Atlas to Schumacher. It is clear that he was involved. There is no certainty, however, that he drew all drawings, or only some, or only part of each drawing. When one compares the drawings collected by Swellengrebel published by Hallema (1951) with the Gordon Atlas, the topographical drawings might be similar enough, but at least the animals in the Gordon Atlas appear to be much better executed. This is one of the considerations which led Forbes & Rourke (1980:55) to assume that 'it seems probable that Gordon was assisted from time to time in the field by two artists, Schumacher to draw mainly landscapes and another to draw specimens of natural history, particularly flowers.' The identity of this second artist is, of course, totally unknown.

I am rather reluctant to agree with this conclusion, for two reasons. First, Gordon never mentioned the existence of two artists anywhere. As has been shown above, there were some references to a soldier-artist who was named in the expedition journals as Schumacher. How is it possible that a second person is never mentioned, however vaguely? Secondly, Schumacher was involved in the preparation of at least some zoological drawings. In the Gordon Atlas, his presumed handwriting (identified below) is found on a number of mammalogical drawings. There are also three bird drawings attributed to Schumacher in the Forster Collection of Zoological Drawings preserved in the BMNH (Whitehead 1978a:30). In Lichtenstein's edition (1844) of J.R.Forster's *Descriptiones Animalium*, drawings 69 and 70 of '*Anas montana*' were said to be 'Fig.pict.Schumacher', and drawing 115 of '*Ardea palearis*' was 'Fig.pict.Schum.' The two first drawings are unfinished sketches, the last is finished and has George Forster's monogram ('GF'). Therefore, Lysaght (1959:299) argued that G.Forster was the artist, while Whitehead (l.c.) suggested that Forster merely finished the drawing. There is no similarity between these drawings and those representing the same species in the Gordon Atlas.

It would be a mistake to forget the role which Gordon himself could have played. In my earlier papers on this issue, I have put much faith in the words of his wife about his active involvement. Although we have no external evidence about Gordon's artistic ability, it could well be that he drew at least the zoological and botanical drawings, if only in outline, to have them finished off by Schumacher or others. This suggestion avoids the need of a second assistant-artist to have painted during the expeditions. It is well known that copies of Gordon's drawings were made, several of which were sent to Holland. We find

33. Not to be confused with the 'Schoenmaker' who Levaillant (1795,II:180) met in 1783 near the Orange River. That probably was Volcker Schoemaker (Forbes 1965:123).

34. The French translation of 1801 'Voyage dans l'intérieur de l'Afrique', Paris, I: 34 added that the journey was made 'avec le colonel Gordon.'

some of them among the drawings in the Paterson Albums (11.5). Maybe these were copies which were not quite good enough or less useful than expected? Maybe Gordon gave them away or sold them to his friends or acquaintances?

An objection to my suggestion has been raised by Forbes & Rourke (1980:55-57, 38-40) especially concerning the botanical drawings. Plants don't keep their colours well after they are collected and the drawings depicting them should have been made in the field. Among the plant drawings in the Paterson Albums, there are only 9 with equivalent copies in the Gordon Atlas (Forbes & Rourke 1980:178). These belong to the set of superior botanical drawings associated with Paterson's second and fourth expeditions to the north. Considering (1) that the drawings were made in the field, (2) that Gordon was absent during those parts of Paterson's expeditions but travelling elsewhere, and (3) that Gordon would not have given drawings to Paterson without keeping a copy himself, this would require a painter used both by Gordon and Paterson at different times.I could explain how Paterson acquired equivalent drawings, because he could just have received them from Gordon who surely must have been able to find the same flowers somewhere during his journey. I cannot explain, however, why Gordon would give away drawings without keeping a copy himself, unless the latter are now lost.

There does not seem to be a final answer. However, until new evidence may be found, I would suggest that the zoological drawings in the Gordon Atlas were prepared by Gordon himself with the active assistance (of unknown extent) of at least Johannes Schumacher.

7.6.3 *Handwritings*

Six different handwritings have been recognised on the zoological drawings in the Gordon Atlas. Those found on the 'imported drawings' (7.6.4) have not been included here.

(A) The handwriting of R.J.Gordon is well known from his letters to Holland and from the Gordon Manuscripts. Many annotations in the Gordon Atlas were written by him.

(B) The handwriting of Johannes Schumacher is not known directly. He signed some drawings in the Swellengrebel Collection and Hallema (1951:12) commented that Schumacher, being from German origin, wrote a mixture of German and Dutch. Unfortunately, the legends of those drawings were not reproduced by Hallema. I have seen photographs of a few zoological drawings in that collection, but on those the legends were not written by Schumacher, at least they don't show any mistakes in spelling. In both the Gordon Atlas and the Gordon Manuscripts, there is a handwriting which in some ways resembles that of Gordon, illustrated in Rookmaaker (1981, fig.10b). The language is Dutch, but many words are spelled with a kind of mistake which would be expected from a German, e.g. rüg, längte, snute, staert, etc. I assume that this handwriting belonged to Schumacher.[35]

(C) A precise sloping handwriting found in long texts on some drawings.[36] Forbes (1965:98) suggested that it belonged to Gordon's artist or maybe Gordon himself 'when lettering carefully.' This is unlikely, considering the many spelling mistakes made by Schumacher (B) and the fact that Gordon wrote as usual in his letter to prince Willem V. I would ascribe this handwriting to a secretary or amanuensis in Cape Town.

(D) A hand with graceful letters, like that of Gordon's, but neater.It occurs on drawings 158, 166, 168, 170, 194. In all cases the text is first traced in pencil and later finished in ink. The owner is not known.

(E) A few titles of mammal drawings are written in a beautiful style. There are a few similarities as well as a few differences with the handwriting responsible for some animal descriptions found in the Gordon Manuscripts (descriptions of aardvarken, stinkbunsem, ratel, wilde kat and reebok). Those notes are unsigned. However, the handwriting resembles that found in a medical essay by J.H.Brugman. The connection is not altogether clear.

(F) Almost all bird drawings in the Gordon Atlas are named in French, sometimes with a little bit longer descriptions. Bokhorst (1973c:101, pl.) compared these legends with a letter written by Levaillant in 1796. There are enough similarities to accept the suggestion that these names were written by Levaillant. It will be noticed that there is very little agreement between the names given in the Gordon Atlas and those in Levaillant's published work.

7.6.4 *Imported drawings*

There are 12 drawings in the Gordon Atlas which represent animals unkown in South Africa. These must have been given to Gordon by visitors to the Cape in acknowledgement of his hospitality. The background of some of them has been traced in some detail. However, the source of a few others is not known: GA ~~92, 93, 94,~~ 257, 293, 294. They are treated in the enumeration of all drawings below (7.6.5).

The only mammal drawing in this series is that of a kangaroo (GA 238) illustrated in Rookmaaker (1981, fig.12). It is not possible to identify the species. The drawing is signed in the lower right corner 'J.Hunter' and on top is written in Hunter's hand: 'Kangaroo, 140 Ct.Wt., Port Jackson, 1788.' Below there is a scale of 7 feet (English). Gordon added 'uit Nieûw Holland' ('from New Holland'). Admiral John Hunter (1737-1821) became officer in the English navy in 1754. He accompanied capt. Arthur Phillips, the later governor of New South Wales, to Australia arriving in January 1788. Between October 1788 and May 1789 Hunter travelled around Cape Horn to Cape Town and back to Australia. He succeeded Phillips as governor of New South Wales in 1795. During his stay in Australia, Hunter made a collection of drawings depicting animals and people. This volume of some 100 items was sold by Sotheby's, London in June 1953 (lot 72) and it was purchased by Rex de Charambac Nan Kivell. It is now housed in the National Library, Canberra, NK 2039. These drawings were described by Hindwood (1965). There is one mammal drawing in this collection, a kangaroo, illustrated in the Sotheby catalogue, no.60 'Kang-oo-roo or Patta-ga-rang, 145 lbs. weight' (Hindwood 1965:87). This drawing and the one in the Gordon Atlas are not identical, but similar enough to be certain that they were made by the same artist. Hunter's signature on GA 238 is remarkable because only two drawings in the Canberra collection are signed. Hunter (1793:66-67) described a kangaroo without giving an illustration.

There are three drawings attributable to George Raper (c.1767-1797) who joined the Royal Navy in August 1783. He was among the crew on the ship in which Hunter went to Australia and later around Cape Horn to Cape Town. Raper returned to England in April 1792 and died when he was about 30 years old (Hindwood 1964). There are 3 sets of drawings connected with this Australian journey by Raper, as described

35. In my doctoral paper of 1979 (p.114) I illustrated this with J.Schumacher's supposed signature from a document of 20 October in ARA, coll.Plettenberg, no.4. Considering that the other signatures were by high placed persons, I wonder if this is the same Schumacher.

36. The illustration in Rookmaaker (1981, fig.10c) should have shown this handwriting C, but it is that by Gordon. That paper was printed while I was in Africa for a longer period.

by Hindwood (1964). The volume of 66 watercolours preserved in the Alexander Turnbull Library (ATL), Wellington, New Zealand, is interesting here because it contains some drawings identical to those in the Gordon Atlas.[37]

GA 308 – ATL 12: Both drawings are unsigned, but they are practically identical. They show the emu, *Dromaius novaehollandiae*.

GA 314 – ATL 9: Both drawings are unsigned. In GA 314 a scale is added of 4 feet 2 inches ('Scale van 4. voeten en 2 duim engelse maat'). Otherwise they are identical, showing the brolga, *Grus rubicunda*.

GA 315 – ATL 59: Both drawings are unsigned. GA 315 has a scale of 4 feet, ATL 59 of 6 feet. Otherwise the drawings are identical, showing the jabiru, *Ephippiorhynchus asiaticus*.

In the Gordon Atlas (GA 322), there is a picture of a stork called 'Vogel van Port Jackson' ('Bird from Port Jackson'). The frame is finished, with a scale of 5 feet: 'Schaal van engelse voeten en duijmen.' This probably also represents the jabiru, but it differs from GA 315.

The last bird drawing in this series (GA 276) is one signed in the lower right corner 'J.Webber del. 1778' illustrated in Rookmaaker (1981, fig.11). Gordon added: 'Vogel uit de Zuid Zee van Capitein Cook, anno 1780, wiens vederen aldaar so hoog geschat worden' ('Bird from the South Sea, from Captain Cook, 1780, the feathers of which are esteemed there'). John Webber (c.1750-1793) accompanied James Cook on his third expedition as an artist. A collection of his drawings of birds is in the British Museum, London, as described by Lysaght (1959:339-344). One of those, no.133 depicted *Vestiaria coccinea*, drawn in 1779 on the Sandwich islands. GA 276 shows the same species, but the drawings have not been compared (see Medway 1981:131).

7.6.5 *Description of the Zoological drawings*

All zoological drawings in the Gordon Atlas, GA 94 to GA 348, have been described below. Each entry starts with the number of the drawing followed by the current identification of the animal depicted. All the text given on the drawings is transcribed unless otherwise noted. This text is often written on different places of the sheet of paper which is not detailed, unless it is on the back of the drawing. The handwriting of Gordon is not further indicated. However, if the annotations were written in another hand, this is shown by the letters B - F explained in 7.6.3. The animals were earlier identified (with some mistakes) in Rookmaaker (1980:18-21). Comments are kept as brief as possible.

Reptiles

GA 94 *Chersine angulata*: 'een soort der Caapse landschildpadden.'[38]

GA 95 *Psammobates tentorius*: 'ander soort caapse schildpad.'[39]

GA 96 *Homopus areolatus* (2 figures): 'ander soort Caapse landschildpadden.'[40]

GA 97 *Testudo pardalis*: 'Grootste schildpadden uit de binnelanden' and '[B] de Längte 16 ½ duim, de hoogte 8½.'[41] There is a scale of 16½ inches.

37. Acknowledgement is made to David G.Medway, who kindly helped to unravel the origin of these drawings of Pacific birds.

38. GA 94 'a kind of Cape land tortoise.'

39. GA 95 'another kind of Cape tortoise.'

40. GA 96 'another kind of Cape land tortoises.'

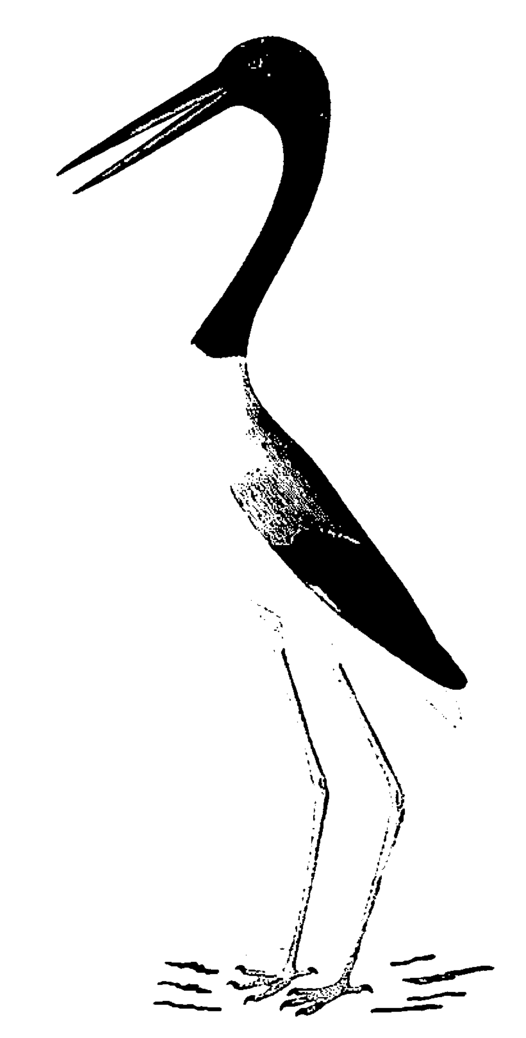


Fig. 27 Gordon Atlas (GA 322): *Ephippiorhynchus asiaticus*.

GA 98 *Polomedusa subrufa*: 'Caapse meir of water schildpad' There is a scale of 6½ inches.

GA 99 *Chamaeleo namaquensis*: 'Cameleon uit het Namacqua land.'[42]

GA 100 'Cameleon' and 'vangende een vlieg.'[43] There are 3 figures, one on the right with outstretched tongue.

GA 101 *Bradypodion pumilum*: 'Caapse cameleon van de vaste wal. Veel op het robben eiland.'[44]

GA 102 *Agama atra*: 'Salamander uit het Namacqua land.'[45]

GA 103 *Agama hispida*: 'Hagedis uit de Caro, den 14 dec 1778.'[46]

41. GA 97 'Largest tortoises from the interior – length 16½ inches, height 8½.'

42. GA 99 'cameleon from the Namacqua country.'

43. GA 100 'Cameleon . . . catching a fly.'

44. GA 101 'Cape cameleon from the mainland. Often on Robben island.'

45. GA 102 'salamander from the Namacqua country.'

46. GA 103 'lizard from the Caro, 14 December 1778.'

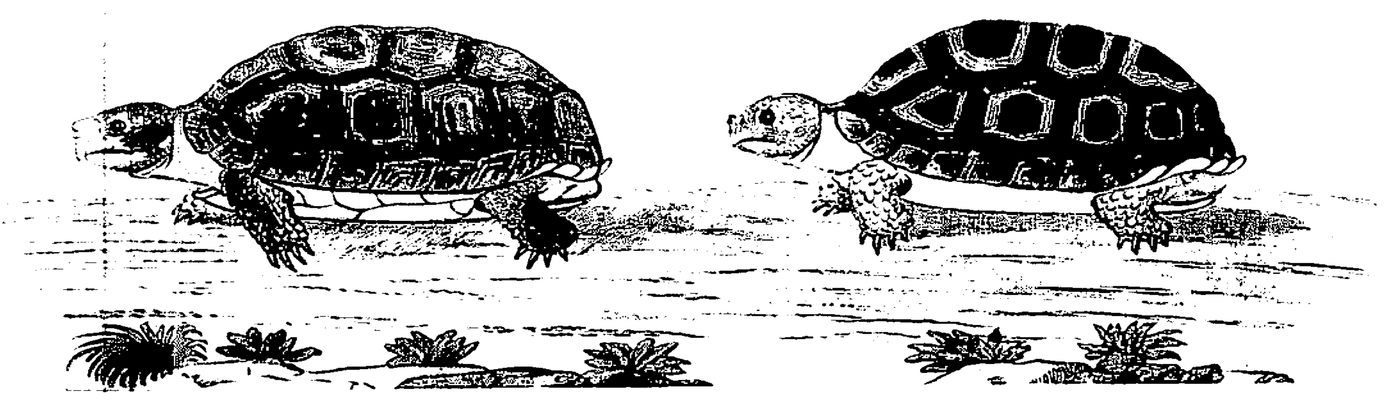


Fig. 28 Gordon Atlas (GA 96): tortoise *(Homopus areolatus)*.

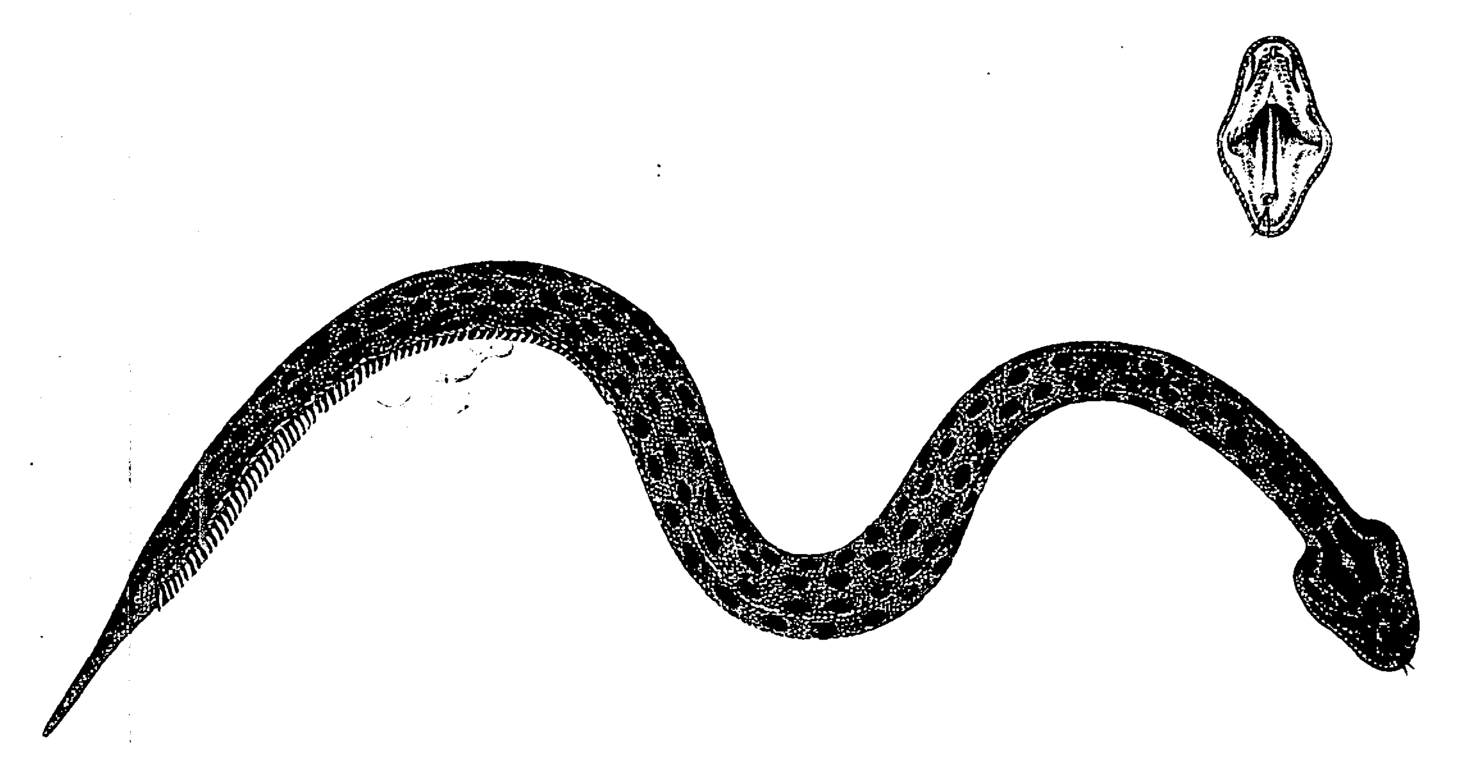


Fig. 29 Gordon Atlas (GA 105): Puffadder *(Bitis atropus)*.

GA 104 *Varanus exanthematicus albigularis*: 'Hagedis die zig in het water en op het land houd. Sneeuwberg den 30 oct: 1779.'[47] There is a scale of 35 inches.

GA 105 *Bitis atropus*: 'Caapse Pof Adder, een der giftigste en kwaadaardigste slangen in Africa, en gevaarlijk doordien hij lui is en in de paden en weijen blijft liggen als in slaap, en men dus ligt op sijn lijf kan treden. Dese slang was nog niet volwassen, anders vind men se van circa drie voet, egter wel so dik als de blote arm van een mensch.'[48] On the right upper corner there is a drawing of the open jaw.

GA 106 *Bitis cornuta*: 'Andere Hoornslang' and '[B] Natüurlijk Groote 18 duym ½ Rijnslands.'[49] On the left the opened jaw is shown.

GA 107 *Bitis caudalis*: 'Sogenaamde hoornsman of horenslang uit het Namacqua land, dese slang is seer vergiftig. Hij heeft geen hoornen so als men se voorgegeven heeft, het sijn maar twe verheventheden van het schubbige vel boven de ogen' and '[B] Naturl: Groote 10 duym Rijnlands.'[50] There is a scale of 10 inches. In the lower right corner there is a small drawing of its opened jaw.

47. GA 104 'lizard which occurs both in the water and on the land. Sneeuwberg, 30 October 1779.'

48. GA 105 'Cape *pofadder*, one of the most venomous and malicious snakes in Africa, and dangerous because it is lazy and it lies on the paths and in the fields as if asleep, and it is easy therefore to step on its body. This snake was not yet full grown, otherwise they are about 3 feet, but as thick as a man's arm.'

49. GA 106 'other kind of *hoornslang* . . . natural size 18½ inches.'

50. GA 107 'so-called *hoornsman* or *horenslang* (horned snake) from the Namacqua country. This snake is very poisonous. It does not have horns as suggested, but these are just two elevations of the skin above the eyes . . . natural size 10 inches.'

Fishes

GA 108 *Mugil cephalus*: 'Caapse sogenaamde springer uit de Verlooren valeij.'[51] There is a scale of 24½ inches 'Rijnlands Maat.'

GA 109 Mugilidae, unidentified: 'Vis aan de Caap gevangen.'[52] There is a scale of 19 inches 'Rijnlands Maat'.

GA 110 *Liza richardsoni*: 'Caapse harder; van dese vis maken de inwoonders hunne haring.'[53] There is a scale of 10 inches 'Rijnlands Maat.' A similar drawing is PA 97.

GA 111 Unidentified: 'Goerami vis' (written in unknown handwriting, possibly A) to which Gordon added 'van Isle de France, wegen tot dertig pond.'[54]

GA 112 *Labeo umbratus*: 'Caapse Moggel uit de rievieren in het binnenland.'[55] There is a scale of 15 inches 'Rhijnlands Maat.' A similar drawing is PA 94.

GA 113 *Lithognathus lithognathus*: 'Caapse steenbraasem.'

GA 114 *Coracinus capensis*: 'Galjoen vis', sketch only.

GA 115 Not identified: 'Caapse Bagger uit de binnenlandse rivieren. In het Hottentots Noe Kauwp, of swarte vis.'[56]

GA 116 *Cheilodactylus fasciatus*: 'Caapse silvervis.'[57]

GA 117 *Xiphiurus capensis*: 'Konings klipvis. dese vis word niet dikwils gevangen, en is een der lekkerste aan de Caap.' There is a scale of 39 ½ inches 'Rijnlands Maat.'[58]

GA 118 *Mola mola*: 'Sonvis aan de Caap opgespoeld in 1783. Sijn vel kan dienen tot chagriene overtreksels.'[59] There is a scale of 8 feet Rijnlandse Maat.'

Invertebrates

GA 119 Unidentified crab, ventralside.

GA 120 Unidentified crab, dorsal side.

GA 121 Three small figures of insects. In the middle a kind of beetle, without text. On the left a grasshopper stated to be 'Guiaab, is een tovermeester in het namaqua land, guigauri hiet een tovermeid of doctor meiden.' On the right is a bigger grasshopper, with the remark: 'Gauaab, bij de hottentotten genaamt. Dit is het inseckt of soort springhaan, daar sij boegoe op smijten en laten hem vertrekken, sijnde blij als hij hen koomt.'[60]

GA 122 'Caapse insecten', 16 small or very small figures of beetles and grasshoppers.

GA 123 'Caapse insecten', 4 figures with animals similar to those shown on GA 121, in a landscape.

Mammals

GA 124 *Papio ursinus*: 'Caapse baviaan, houd sig in the bergen in klipgaten. Gorŏ in het hottentots.'[61] On the right there is a scale of 1 foot 6 inches.

GA 125 *Cercopithecus aethiops*: 'Apen, uit het Outeniquas land, en ook ten noorden van de Caap de Goede Hoop. Dit is de enigste soort die ik ooit gevonden heb, en sij sijn ten minsten hondert uren ver van de Caap. dog de bavianen sijn overal op de bergen, en in de bossen; daar dese apen zig alleen in de bossen, en bomen langs de rivieren, ophouden. lengte van kop tot staart 18 duimen.'[62] Two monkeys are shown sitting down.

GA 126 *Papio ursinus*: 'Caapse baviaan niet volwassen. 2 voet 3 duim rijnlands langte van snuit tot staart. de staart 14 duim. hoogte van voren 1 voet 9 duim, hoogte van agteren 1 voet 7 en ¼ duim. Na het leven getekend Swellendam den 18 oct 1777. R.J.Gordon. In het Hottentots goro, de laatste syllabe lang, de eerste met een harde klap.'[63] This is a drawing of a captive baboon with a chain attached to its collar.

GA 127 *Canis mesomelas*. Gordon called it 'Jackhals' and this drawing showed a male 'een reu.' There is a rather long description on this drawing continued on GA 128 which is pasted in on the same folio. This can here be summarized: 'this is the real fox similar in colour and appearance to the European fox, but smaller, and with the same habits. He would search meat for the lions, but they eat the meat left by lions. When caught it makes a crying noise, a bit like that of the quagga. The hottentot witchdoctors say that he brings news from other witchdoctors when it cries.' Signed 'R.J.Gordon.' There are some measurements in Rijnlands feet and inches: '[A] lengte van t' begin der snuit to de staart 2 – 1½, der staart 1 – 1½, omtrek van voren 1 – 3, omtrek voor de agterpoten 1 – 1.'[64] On the right there is a scale of 15 inches.

GA 128 *Otocyon megalotis*: 'dit dier word door de hottentotten *á* geheten, met een sissende slag. Hij is een soort van de hier te lande genoemde jakhals, die eygentlijk weinig met de europeaansche vos verschild, en dus de regte jakhals niet is. Hij leeft op de selvde manier als de Caapse jakhals of vos, dog men siet des *á* niet digt bij de Caap, maar wel in het binnenland, daar de andere soort jakhals of eigentlijk vos, ook in het gansche land door is. R:J:Gordon. Dit was een wijfje, er is niet meer onderschied tussen reu en teef als tussen onse vossen.'[65] There is a scale on the right of 14 inches.

GA 129 *Canis mesomelas*: The drawing is very similar to GA 127 but lacks the white stripe across the back. There is a scale of 15 inches.

51. GA 108 'Cape so-called *springer* from Verlooren valey.'
52. GA 109 'fish caught at the Cape.'
53. GA 110 'Cape *harder*, from which the people here make their herring.'
54. GA 111 'goerami fish . . . from Isle de France, weight up to 30 pounds.'
55. GA 112 'Cape *moggel* from the rivers in the interior.'
56. GA 115 'Cape *bagger* from the interior rivers. In Hottentot language called *noe kauwp*, or black fish.'
57. GA 116 'Cape silver fish.'
58. GA 117 'King *klipvis*. This fish is rarely caught, and is one of the most tasty kinds at the Cape.'
59. GA 118 'Sunfish stranded at the Cape in 1783. Its skin can be used to cover ?' The meaning of 'chagriene' is not clear.
60. GA 121 (left) '*Guiaab*, is a witch doctor in Namacqua country, Guigauri is the name of a witch girl, or doctor's girls.' (right) '*Gauaab* is the Hottentot name. This is a kind of grasshopper' (remainder of the text is not clear).
61. GA 124 'Cape baboon, which lives in the mountains on the cliffs. Goró in the Hottentot language.'
62. GA 124 'Monkeys, from the Outeniquas country, and also north of the Cape of Good Hope. This is the only kind which I have ever encountered, and they live at a distance of at least 100 hours from the Cape. But the baboons are everywhere in the mountains and in the forests. These monkeys only occur in forests, and in trees along the rivers. Length from head to tail 18 inches.'
63. GA 126 'Cape baboon, not full grown. Length 2 feet 3 inches from nose to tail, the tail is 14 inches, height in front 1 foot 9 inches, height behind 1 foot 7¼ iches. Drawn after life, Swellendam 18 October 1777, R.J.Gordon. The hottentot name is goro, the last syllable is long, the first pronounced with a loud click.'
64. GA 127 'jakhals, male' . . . 'length from the nose to the tail 2-1½ of the tail 1-1½, circumference in front 1-3, circumference in front of the hind legs 1-1.'

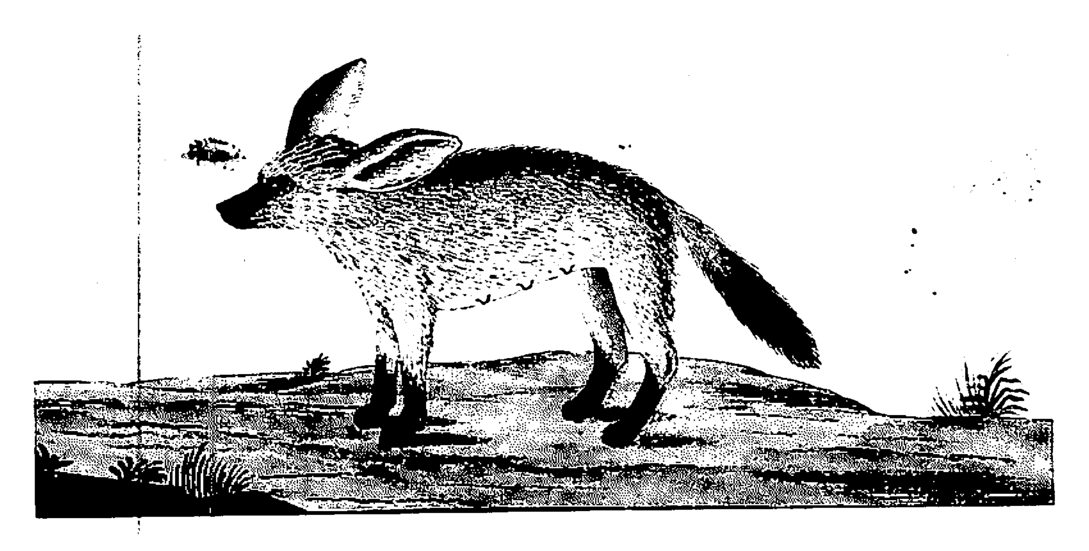


Fig. 30 Gordon Atlas (GA 128): Bat-eared fox *(Otocyon megalotis)*.

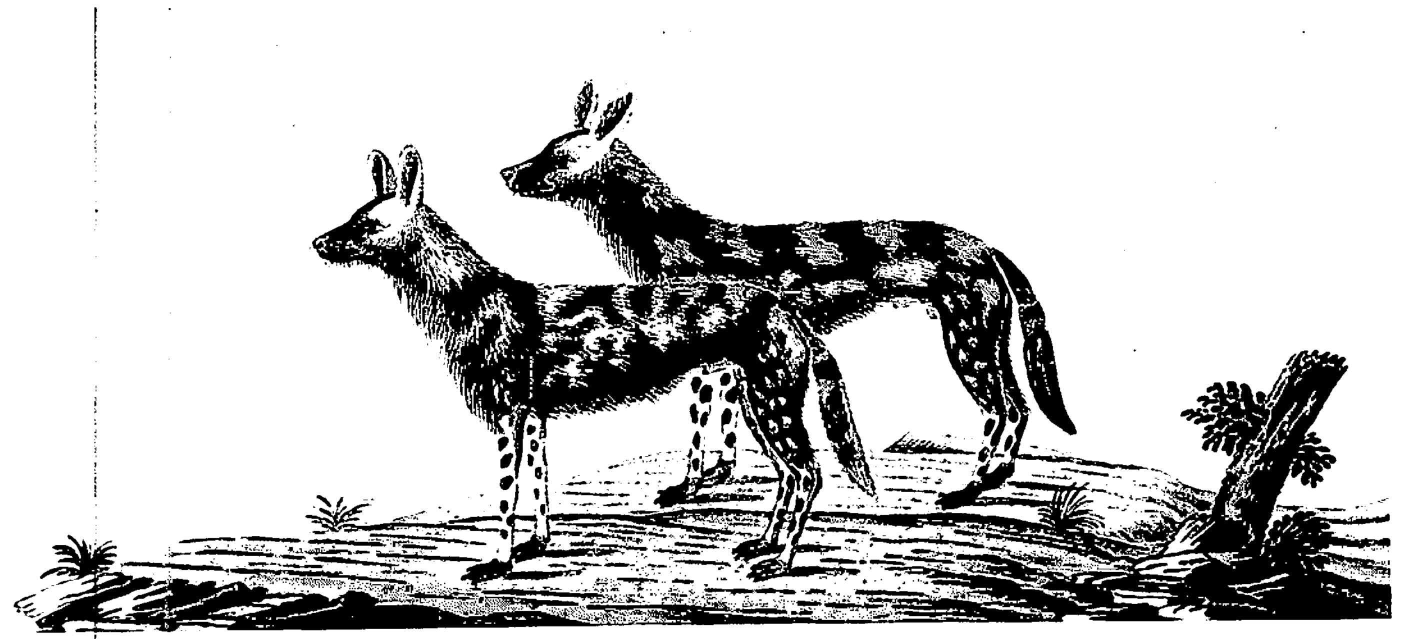


Fig. 31 Gordon Atlas (GA 130): Wild dog *(Lycaon pictus)*.

GA 130 *Lycaon pictus*: '[E] Caapse Wilde Honde' and 'Dit dier is nog hond, nog wolf, nog vos nog hyaena nog jakhals adive. Dese dieren lopen in grote troppen jagende, en veele schade aan de gasellen doende, leven in holen in the grond, jagen meest bij dag, hebben vier klaauwen aan de voor en agterpoten als de hyaena, dog hebben geen follicule onder de staart, en de teeldelen corresponderen meest met de hond en wolf. Sij sijn seer actief, kwaadaardig en bijten seer scherp!'[66] Two specimens are shown behind each other. Illustrated in Molsbergen (1922,III, pl.1).

GA 131 *Otocyon megalotis*: The drawing is very similar to GA 128. A text of 2½ lines written on the grass underneath the animal is crossed out. Above the animal is written: '[D] Om de kop is het witt, de ooren zijn bruyn, 't Lijff is geel grauw, de staart grauw, de punt swart, de pooten swart en swarte streepen, de snuyt swart tot aan tusschen de oogen, voor tusschen de ooren kleyne swarte strepen.' Below Gordon added: 'twe voet van snuit tot staart, 14 duim hoog, hiet *a* een soort van jakhals,

65. GA 128 'This animal is called *á* by the Hottentots, with a hissing click. It is a kind of those here called *jakhals*, little different from the European fox, and therefore not the true jackal. It lives like the Cape jackal or fox, but this *a* is not seen near the Cape, only in the interior, while the real jackal or actually fox occurs throughout the country. R.J.Gordon. This was a female, and there is no more difference between male and female than in our foxes.'

66. GA 130 'Cape wild dog . . . This animal is neither dog, nor wolf, nor fox, nor hyena nor jackal adive. These animals live in large groups hunting, and much damaging gazelles. They live in holes in the ground, hunt by day. They have 4 claws on both the front and the hind feet like the hyena, but they lack the follicule underneath the tail, and the genital parts are like those of the dog and wolf. They are very active, malicious and they bite badly!'

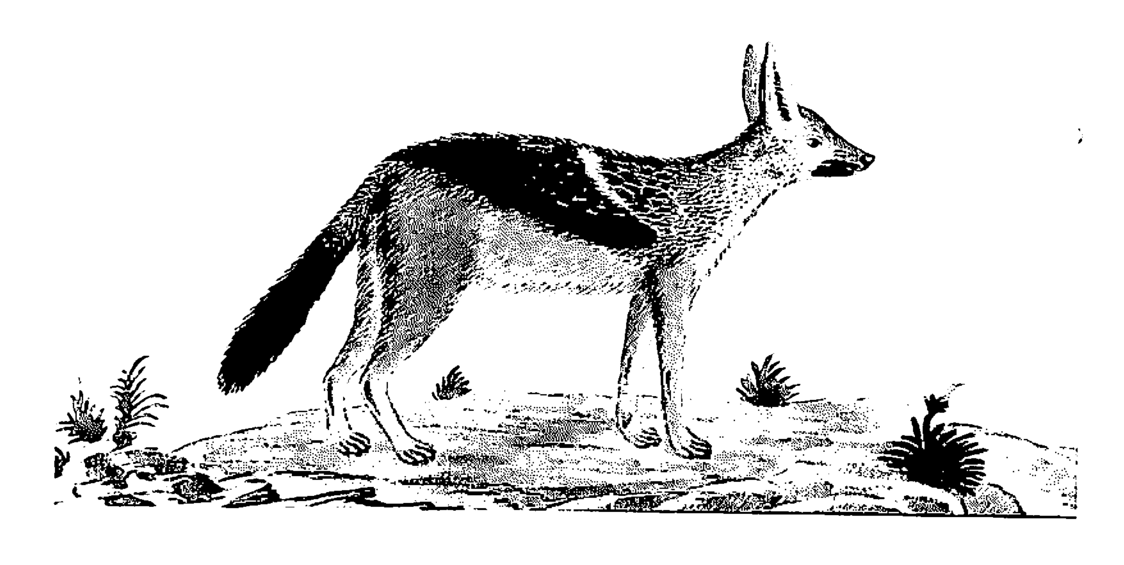


Fig. 32 Gordon Atlas (GA 127): Black-backed jackal *(Canis mesomelas)*.

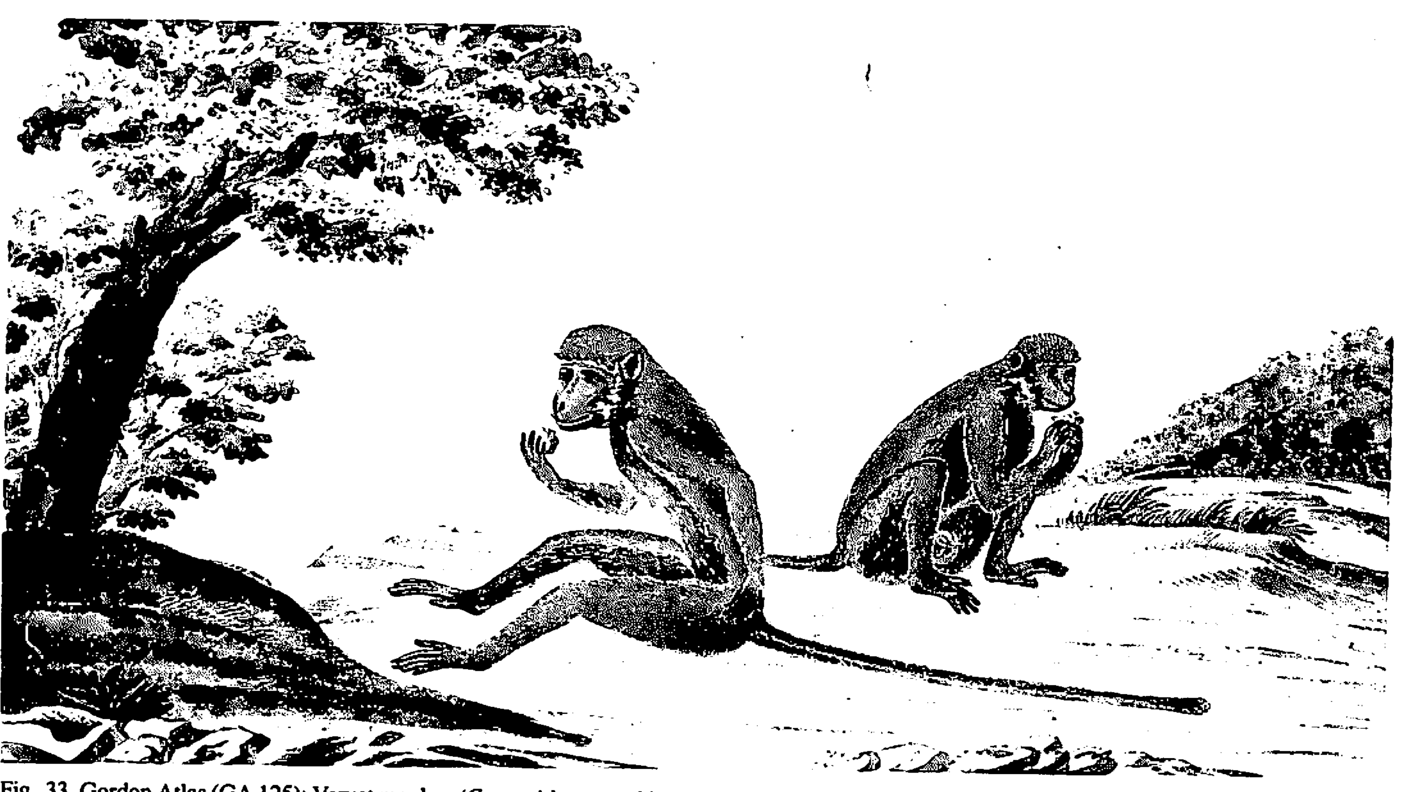


Fig. 33 Gordon Atlas (GA 125): Vervet monkey *(Cercopithecus aethiops)*.

dog verschild met de andere Caapse jakhals, die bijna als een europeaanse vos uitsiet.'[67]

GA 132 *Crocuta crocuta*: 'Mannetjes hyaena, aan de Caap genoemt tijgerwolf, getekend om de zoort van maanen die iets dog weinig na die van een mannetjes leeuw lijken, en de vlakken op de rug, to kunnen aantonen. De Caap den 2 July 1777. R.J.Gordon' and 'Door de Hottentotten genaamt t'hoeka sprekende de eerste syllabe met een klappende slag van de tong tegen het verhemelte, tegelijk uit.'[68] The animal is shown sitting with the back depicted.

GA 133 *Crocuta crocuta*: 'Mannetjes hyaena, aan de Caap

67. GA 131 'Around the head it is white, ears are brown, body is yellow-grey, tail grey with black tip, legs black and black stripes, the muzzle black extending to between the eyes, and between the ears there are small black stripes. . . . Two feet long from nose to tail, 14 inches high, is called *a*, a kind of jackal, but differs from the other Cape jackal, which looks almost like a European fox.'

68. GA 132 'Male hyena, called tiger-wolf at the Cape, drawn to show the kind of manes which are a little like those of a male lion, and the spots on the back. The Cape, 2 July 1777 . . . It is called *t'hoeka* by the Hottentots, who pronounce the first syllable with a click of the tongue against the palate.'

genoemt tijgerwolf, den Caap den 1 July 1777. R:J:Gordon. doodgeschoten leggende getekent. Door de hottentotten genaamt thòeka de eerste syllabe met een klappende slag tegelijk uitsprekende. Lang van snuit tot begin der staart vier voet, nogthans niet volwassen.'[69] Animal only shown in side-view.

GA 134 *Crocuta crocuta*. No text. Sketch of animal only.

GA 135 *Crocuta crocuta*: 'Wijfjes hyaena of hier aan de Caap genaamd tijgerwolf doodgeschoten zijnde levendig verbeeld. de Caap 17 July 1777. R.J.Gordon.'[70] There are a few measurements recorded by Gordon in Rijnland feet and inches: length from nose to tail 4 feet 9¾ inches, tail 1 foot 4 inches, shoulderheight 2 feet 4 inches, height at hind feet 2 feet 2½ inches. The peculiar way of walking is noted. It often caught cattle or sheep, but did not attack people. The animal is shown in side-view.

GA 136 *Crocuta crocuta*: 'Mannetjes hyaena of zogenaamde tijgerwolf, vertoont im desselfs teeldelen te kunnen zien. de Caap den 2 July 1777. R J Gordon.'[71] The anal region is depicted with the position of the penis.

GA 137 *Crocuta crocuta*: Anatomical drawing of anal region of female hyena, with text: 'Aftekening van een gedeelte van een wijfjes hyaena, dewelke men aan de Caap de Goede Hoop in overvloed vind, en daar tijgerwolven genaamt worden, met het vertelsel dat zij het ene jaar man en het andere vrouw zijn. Na drie dier dieren in July 1777 to hebben onderzogt, hebbe dezelven voor hyaenas gekent, dog derzelver kenmerken, van een zak onder de staart, vier klaauwen aan de voeten zo voor als agter, dog desselvs postuur en couleur veel met de plaat van buffon, desselfs teeldelen die nergens duidelijk geobserveerd vinde, zijn zekerlijk zo zeldzaam geformeert, dat die ligt een, in die zaken niet geoefende, zou bedriegen, kunnende men dit zonderlinge dier niet dan met verwondering over de differente schikkingen der nature beschouwen.'[72]

GA 138 *Crocuta crocuta*. Another view of the ventral side of a female hyena, with text: 'Wijfjes hyaena aan de Caap genoemt tijgerwolf den 17 July 1777, R:J:Gordon. Lang van neus tot begin der staart 4 voet en 9¾ duim rijnlands. Lengte van de staart 1 voet 4 duim, hoogte van vooren 2 voet 4 duim, hoogte van agteren 2 voet 2½ duim.'[73] The letters indicated in the drawing are explained.

GA 139 *Proteles cristatus*: 'Indische Hyaena.'[74] The name is confusing, but Gordon probably depicted the aardwolf, unless the drawing was imported. The size is not indicated. The stripes are like those of the aardwolf, but the mane on the back and the bushy tail are only indicated.

GA 140 *Acinonyx jubatus*: 'Luipaart van de Caap: dog dit dier was niet gansch volwassen. Dit dier moet onderscheiden worden van de Panters en Luipaarden van buffon, die men hier ook heeft en seer kwaadaardig sijn, hebbende geen maan. Dog dit dier, schoon hij het gesnor en acties der andere panters en luipaarden heeft, wordt makkelijk door de honden gedoodt. Hij heeft manen, en desselfs klaauwen sijn niet so scherp, en sitten meer op de toonen, als een hondt, egter klimt hij op de bomen, en kan de nagels min of meer uit en in trekken, dog niet als de voornoemde dieren.'[75] On the right there is a scale of 1 foot 8 inches.

GA 141 *Galerella pulverulenta*: 'Caapse zogenaamde muishont, zijnde de igneumon; er zijn verscheiden zoorten in dit land. iets minder als levensgrote getekent, den 15 aug: 1777. R:J:Gordon.'[76] The animal was captive, it is wearing a collar to which a chain is attached. It is difficult to identify the species with certainty.

GA 142 *Ictonyx striatus*: '[E] Caapse stink bunsem, leevens groote, sijnde de zorille van Buffon Tom.XIII, pag.156.'[77] Only the animal is drawn.

GA 143 *Genetta tigrina*: 'Caapse sogenaamde Muskeljaatkat, sijnde de Genette van de Heer Buffon.'[78] Above the animal there is a scale of 16 inches 'Rijnlandse Maat' which represents its body length, which is about equal to the length of the tail.

GA 144 *Suricata suricatta*: 'Dese dieren sijn veel in de binnenlanden en leven in holen in de grond, hebben maar vier klaauwen voor en agter, de voorsten seer laag en tot graven geschikt. Sij houden sig in troppen bij elkander en sijn ligt tam te maken, en stinken niet. Dit dier koomt het naaste bij een viverra. Leven van kruiden en ook van vogels, muisen etc. In het hottentots Garaa, en door onse buitenlieden worden sij graatje geheten.'[79] Two animals are shown, with a scale below of 7½ inches.

GA 145 *Suricata suricatta*: 'Differente attitudes deser die-

69. GA 133 'Male hyena, called tiger-wolf at the Cape, Cape 1 July 1777. R.J.Gordon. It is shown lying after being killed. The hottentots called it *thòcka* pronouncing the first syllable with a click. Length from nose to beginning of tail 4 feet, but not yet adult.'

70. GA 135 'Female hyena or tiger-wolf, shot dead but shown as if alive. Cape 17 July 1777. R.J.Gordon.'

71. GA 136 'Male hyena or so-called tigerwolf, shown to exhibit its genital parts. Cape 2 July 1777. R.J.Gordon.'

72. GA 137 'Sketch of a part of a female hyena, which are found in abundance at the Cape where they are called tiger-wolves, with the story that they are male one year, female the next. After having examined three of these animals in July 1777, I knew them as hyenas, with a sack under the tail, four claws on both feet in front and behind, and their general posture and colour like the plate in Buffon. Their genital parts, which have never been clearly observed, are certainly formed in such a special way, that they could easily deceive someone who is not trained in these matters. One can only look at this animal with amazement about the different arrangements of nature.'

73. GA 138 'Female hyena, called tiger-wolf at the Cape, 17 July 1777, R.J.Gordon. Length from nose to the beginning of the tail 4 feet 9¾ inches. Length of the tail 1 foot 4 inches, height in front 2 feet 4 inches, height behind 2 feet 2½ inches.'

74. GA 139 'Indian hyena.'

75. GA 140 'Leopard of the Cape, but this animal was not quite full grown. This animal must be differentiated from the panthers and leopards of Buffon, which are also found here and which are quite malicious, and those do not have a mane. But this animal, although it has the purring and actions of the other panthers and leopards, is easily killed by the dogs. It has manes, and its claws are less sharp, and they are further in between the toes, than the dogs, but it climbs trees and can withdraw and extend its claws in some measure, but not like those mentioned before.'

76. GA 141 'Cape so-called *muishont* which is the ichneumon. There are several kinds in this country. Drawn less than life-size, 15 August 1777- R.J.Gordon.'

77. GA 142 'Cape *stink bunsem*, life size, being the zorille of Buffon.'

78. GA 143 'Cape so-called *Muskeljaatkat*, which is the Genette of Mr Buffon.'

79. GA 144 'These animals are numerous in the interior where they live in holes in the ground. They have only four claws in front and behind, the front ones are very low and suitable for digging. They live in groups and easily tamed, and they do not stink. This animal resembles a viverra. They live from plants and also birds, mice etc. In the Hottentot language called *Garaa*, and our farmers call them *graatje*.'

ren wanneer sij eenig gerugt horen, sijnde sij seer nieusgierig, aardig, slim en geswind. Vatten egter hun voedsel niet tussen de voorpoten als de eekhoorntjes.'[80] Three animals are shown, with below a scale of 7½ inches.

GA 146 *Graphiurus ocularis*: 'Een muis, levensgroote, dewelke men in de franse hoek gevangen heeft, en anders nergens een diergelijk gesien heeft.'[81]

GA 147 *Mellivora capensis*: 'Caapse ratel, is seer op bije nesten gesteld; destrueert het heele nest, etende en bijen en honing. Is door sijn hart vel moejelijk door de honden te dooden.'[82] Below the text there is a scale of 2 feet 6 inches 'Rijnlandse Maat.'

GA 148 *Giraffa camelopardalis*. No text. The drawing shows the animal from the side, similar to GA 149. It is illustrated by Molsbergen (1916,I, pl.7) and Rookmaaker (1980, fig.1).

GA 149 *Giraffa camelopardalis*: 'Camelopardalis uit het Einiquas land, in het hottentots Neib, in het Moetjoanaas Toeka genaamt. Dit was een oude bul, dus de vlakken swartagtig, anders sijn deselven ros. En bul en koeï hebben een soort van horens, edog deselven sijn niet hol als die der gasellen, maar solide als die der harten, schoon deselve nooyt verwisselen of afvallen. Dese dieren sijn fabelagtig te hoog in taille opgegeven, hebbende ik de twe der grootsten en beiden oude bullen geschoten, en er velen gesien, en dese de grootste, was 15 voet 4 duim Rijnl: Maat hoog regte lijn van boven op de kop tot aan de grond. Hunne gemeene taille is tussen 14 en 15 voet, en niet so als Vosmaer pretendeert van 17, ja meer voeten.'[83] The animal is shown in upright position with a Hottentot armed with a spear looking at it. On the right there is a scale of 15 feet. Illustrated in Rookmaaker (1983a, fig.2). It is similar to the plate in Allamand (1781, pl.19).

GA 150 *Giraffa camelopardalis*: 'Camelopardalis in sijne stappende gedaante; men siet de twe benen van deselve sijde altijd als gelijk voortstappen; hij draaft niet, maar galoppeert met veel balancering van den hals, van voren na agteren, en schoon hij hard loopt, is een goed paart sneller, en wind op hem, niettegenstaande hij lange poten heeft en dus grote schreden maakt. Sijn vlees is goed te eten en de merg uit sijne benen lekker. Hebben maar een jong.'[84] Drawing similar to GA 149.

GA 151 *Giraffa camelopardalis*. An engraving on which is mentioned in ink (unknown handwriting): 'Sceletus Haga Comitum in Museo Principis. Merck, ad.nat.delin. 1784. B.F.Grout sculp. 1785.' Gordon added: 'Dit is het scelet het welk ik na den Haag gesonden heb, edog het is slegt opgeset sijnde veels te laag van agteren, en heeft bogten in den hals, hetgeen het dier niet heeft, maar wel regt op of schuins vooruit.'[85] Illustrated in Rookmaaker (1983a, fig.9).

GA 152 *Giraffa camelopardalis*. Drawing of the skeleton similar to the engraving published by Allamand (1781, pl.20).

GA 153 *Giraffa camelopardalis*: 'Skelet van den Camelopardalis Ao.1780 door mij aan het Cabinet van sijne doorlugtige Hoogheid in den haag gesonden.'[86] The drawing is similar to GA 152, but the neck in the latter is in a more upright position. Illustrated in Rookmaaker (1983a, fig.7).

GA 154 *Giraffa camelopardalis*. No text. Several skeletal parts, similar to GA 155.

GA 155 *Giraffa camelopardalis*. Similar to GA 154. Illustrated in Rookmaaker (1983a, fig.5).

GA 156 *Giraffa camelopardalis*. Several bones, without text. Illustrated in Rookmaaker (1983a, fig.6).

GA 157 *Oryx gazella*: 'Caapse gemsbok. Koei en bul grote horens, geen larmiers, vier spenen. Dit dier is ten onregte de pasan genoemt, en ook ten onregte de gemsbok, sijnde die veel kleinder dieren als dese grote soort gazelle. Heeft vier spenen en een galblaas.'[87] On the right there is a scale of 4 feet 'Rijnlandse Maat.'

GA 158 *Alcelaphus buselaphus*: 'Caaps hartebeest bul, zijnde de bubalis dewelke in Buffon aangehaald word. En bul en koey hebben horens, egter de koey iets dunder en kleinder, ook is de koey iets kleinder van tailje, soo als in alle bokken, mij bekend. Hij heeft larmiers en maar twee speenen.' In the hand of D there are some indications about its colour, and a long list of 18 external measurements, e.g. length from nose to tail, 4 feet, shoulderheight 44 inches. On the verso there is a description in the hand of C: 'Hun vlees word veeltijds aan dunne lappen gesneden en in de zon gedroogd, en word bij veelen der ver wonende boeren, als brood tot ander vlees gegeten. Deese dieren zijn lekker wild. De Hottentotten noemen hem Camaa, de Ca met een sissende tongslag. De Caffers licama. Sij lopen in groote troppen, edog nu niet meer digt bij de Caap. Hun geluid is, soo ver ik tot nu toe weet, als meest alle bokken van dit land, zijnde een soort van geniest, als zij op de loop gaan. Dit dier is een der geswindsten van dit land, so dat een paard hem niet inhaald. De ogen van alle deese soort van bokken sijn groot en staan seer levendig, swart iets uyt den donker blauwen. Men siet hunne lammeren ook in September, en ook wel omtrent April. Ik heb deese dieren nooyt op het gebergte gesien, so als de zebra, canna, en de grijze reebok: deesen houden zig egter zoo

80. GA 145 'Different attitudes of these animals when they hear some noises, being very curious, nice, clever and fast. Do not take their food between the front paws like the squirrels.'

81. GA 146 'A mouse, life size, caught in the Franse Hoek, and otherwise a similar one has not been found.'

82. GA 147 'Cape *ratel*, is very fond of bee hives, and it destroys the whole hive, eating both the bees and the honey. It is difficult to kill it with dogs due to its tough skin.'

83. GA 149 'Camelopardalis from the Einiquas country, called *Neib* in the Hottentot language, *Toeka* in the Moetjoanaas language. This was an old male, so the spots are blackish, otherwise they are reddish. Both male and female have a kind of horns, but those are not hollow like in the antelopes, but solid like in the deer, but they are never changed or dropped. The size of these animals has been greatly exaggerated, because I shot two of the biggest, both old males, and I have seen many smaller ones, and the biggest was 15 feet 4 inches high in a straight line from the ground to the top of the head. Their normal height is between 14 and 15 feet, and not like Vosmaer pretends some 17 or more feet.'

84. GA 150 'Camelopardalis in walking posture. The two legs on the same side are always moved at the same time. It does not trot, but gallops balancing its neck from front to behind, and although it is fast, a good horse is faster, and will beat it, notwithstanding its long legs and large steps. They have only one young.'

85. GA 151 'This is the skeleton which I sent to The Hague, but it is badly mounted, being much too low behind, and it has bends in the neck which the animal doesn't have, but the neck is straight or bent forward.'

86. GA 153 'Skeleton of the Camelopardalis sent by me in 1780 to the Cabinet of His Highness in The Hague.'

87. GA 157 'Cape gemsbok. Both male and female have large horns, no preorbital glands, four teats. This animal is called *pasan* by mistake, and also erroneously gemsbok, as it is much larger than those smaller animals.'

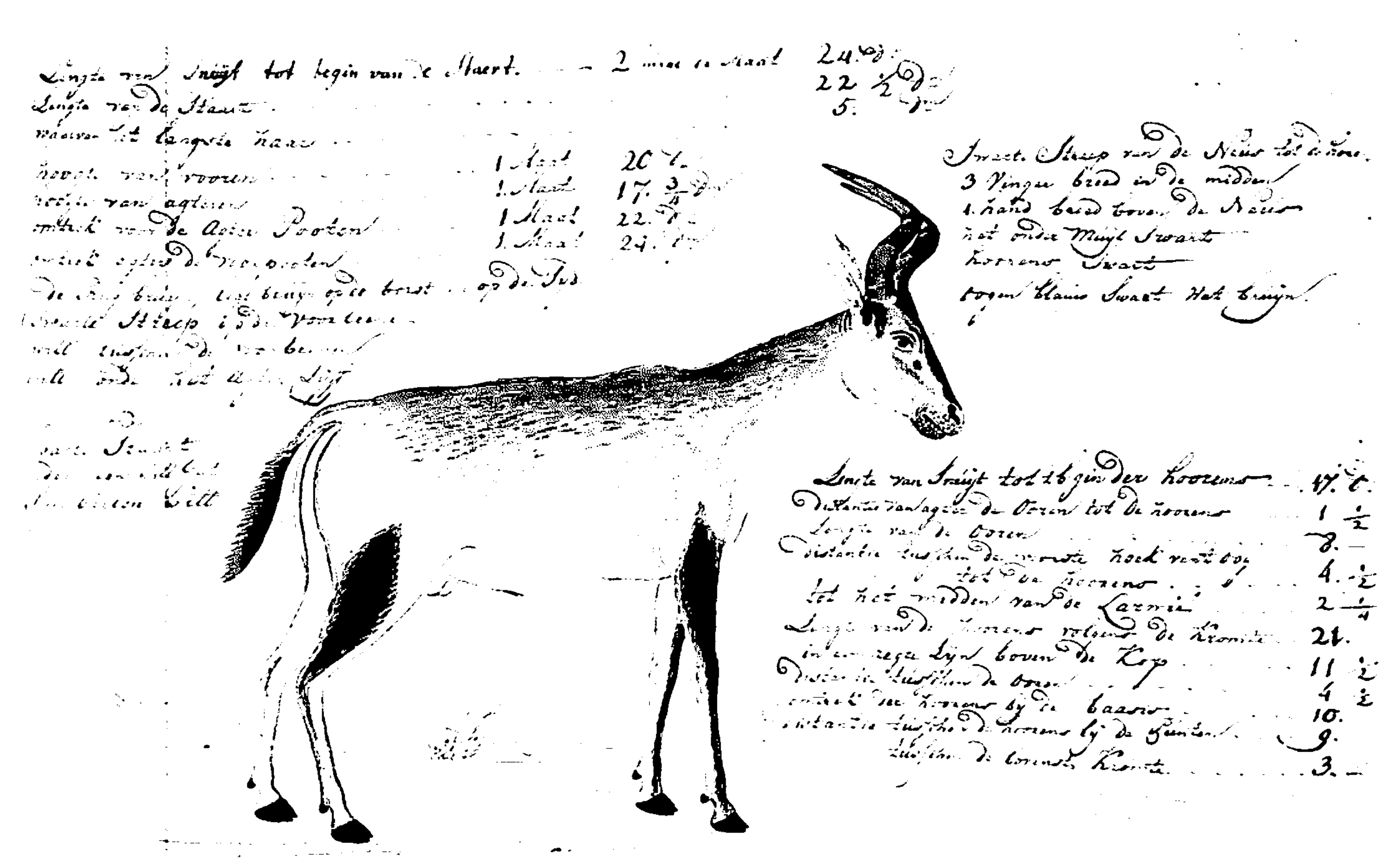


Fig. 34 Gordon Atlas (GA 158): Red hartebeest *(Alcelaphus buselaphus)*.

wel in plaines, als de kwagga en noes, dewelke ik er nooyt gesien heb.'[88] An engraving similar to this drawing was published by Allamand (1781, pl.8).

GA 159 *Hippotragus leucophaeus*. Illustrated in Mohr (1967, fig.21). On the right there is a scale of 3 feet 6 inches 'Rijnlandse Maat.' Text: 'Dit is de blaauwe bok van de Caap, men heeft hem den Zeiran van Buffon genoemt, edog ten onregte; dewijl dit dier, wanneer men hem bij de beschrijving van den Zeiran in Buffon vergelijkt, daar niet aan voldoet; so ook niet de Caapse gemsbok aan den Pasan, niet tegenstaande de beschreevene horen van den Pasan in Buffon wel van den Caapsen gemsbok sijn. Egter siet men dat de pasan in Buffon een klein dier gesegt word te sijn, en dus geen horens van over twe voet sou dragen.'[89] Information about the bluebock itself is unfortunately almost absent.

GA 160 *Hippotragus equinus*. Illustrated in Mohr (1967, fig.6). There is a scale of 4 feet 8 inches 'Rijnlands.' Text: 'Een onbekende gaselle. Mogelijk een bastert van een tzeiran en pasan of Caapse gems en blaauwbok. Ik heb sedert bevonden dat dit dier in het bapouroe boukana capii land, agter de bosjesmans, sig bevind en dus geen bastert is. Edog hoe singulier dat dit dier het enigste van die soort dewelke ooyt en wel 300 uur uyt sijn land gedwaalt is. Sijnde bij Plettenbergs baay in de bossen door mij gevonden.'[90] The latter specimen was depicted and its skin preserved, as appears from GA 161. The locality which Gordon mentions as one where the roan was known was near the Vaal River, contributary to the Orange River (Skead 1980:521).

88. GA 158 'Cape hartebeest male, which is the bubalis mentioned by Buffon. Both male and female have horns, but in the female somewhat thinner and smaller, and also the female is smaller in size like in all antelopes known to me. It has preorbital glands and only 2 teats.' *Verso*: 'Their meat is often cut into thin pieces and dried in the sun, which is eaten by many farmers living far away like bread with other meat. These animals are a tasty kind of game. The Hottentots call it *Camaa*, the *ca* with a hissing click. The Caffers call it *licama*. They live in large groups, but no longer in the neighbourhood of the Cape. Their noise is, as far as I know till now, like most antelopes in this country, being a kind of sneezing, when they run away. This animal is one of the fastest of this country, and a horse cannot overtake it. The eyes of all these kinds of antelopes are large and lively, black or almost dark blue. One can see their young in September, sometimes around April. I have never seen them in mountains, like the zebra, canna, and the grey reebok: but those also occur in the plains with the kwagga and gnus, which I have never seen in the mountains.'

89. GA 159 'This is the blue bock of the Cape, which has been called the *Zeiran* of Buffon, but that it not correct, because this animal does not resemble the description of the Zeiran in Buffon. Likewise the Cape gemsbok differs from the Pasan, although the horns described as those of the pasan in Buffon do belong to the Cape gemsbok. However, one can see that the pasan in Buffon is said to be a small animal, which would not carry horns of over 2 feet length.'

90. GA 160 'An unknown gaselle, possibly a hybrid between a tzeiran and pasan or Cape chamois and blue bock. I have found since that time that this animal occurs in the country of bapouroe boukana capii, behind the bushmen, and it is not a hybrid. But it is strange that this animal was the only one of its species ever to stray some 300 hours from its country. It was found by me in the forests near Plettenberg Bay.'

GA 161 *Hippotragus equinus*. Illustrated in Mohr (1967, fig.7). Text: 'Dit vel van het onbekende dier heb ik in 1779 aan het Cabinet in den Haag gesonden.'[91] There is a scale of 8½ feet.

GA 162 *Tragelaphus strepsiceros*. Illustrated in Molsbergen (1916,I,pl.4). Text: '[E] Coedoe van de Kaap de Goede Hoop' to which Gordon added: 'in het Namacquas, geib. Vier spenen en een galblaas.'[92] There is a scale of 4 feet 3 inches 'Rijnlands Maat.'

GA 163 *Taurotragus oryx*. The drawing is similar to the engraving published by Allamand (1781, pl.7). On the right there is a scale of 5 feet 'Rijnlands'. Both below and above the drawing of the animal there is a long text both in the hand of C, which will be partly summarized here. The text starts: 'Dit is het schone dier, hetwelk men aan de Caap Eland noemt, in het hottentots Canna, de eerste syllabe met een harde tongklap. In het caffers inpoof. Hij is een der menigvuldigste soort grasvretende dieren van dit land, men vind hem in het binnenland, met troepen van 50, 60 tot 200 en 300 bijeen, bij de meeste waterfonteynen. Bij de Caap is hij bijna geextermineert, egter vind men hem nog in de gebergtens, dewelke bij Hottentots Holland beginnen, en het is te verwonderen de steile plaatsen, dewelke dit sware dier beklimmen kan. Ik schat hem ordinair seven à agt honderd ponden te wegen.'[93] The remaining text can be summarized as follows: It can easily be shot. The largest bull walks in front of the herd. When they are hunted, they run against the wind and can easily be reached. When an animal is hit by a bullet, it can jump very high and very far. There are no preorbital glands, 4 teats and a gall-bladder. It is nice to eat. The skin is tough and is used to make belts. The hoofs are believed to cure convulsions. The colour sometimes is more reddish, with some white stripes on the sides. Old bulls have more hair on the forehead, and horns which are thicker and shorter. – Above the drawing the text is continued, saying that a bull is depicted. It could possibly be domesticated. There are few differences between male and female, 'de rest zal u aan het vel kunnen zien' (the rest you can seen from the skin.) There is a list of 17 measurements, including length (from nose to base of tail) 8 feet 2 inches, shoulderheight 5 feet.

GA 164 *Damaliscus dorcas dorcas*: 'Dit dier word aan de Caap bontebok genaamt, in het hottentots toeroego. En ram en ooy hebben horens, larmiers, twe spenen en een galblaas. Dit dier was een ooy van een jaar oudt, dus niet volwassen. R:J:Gordon 1777. Zij lopen in grote troppen en zijn lekker wilt. En is geenszins de Guib van den heer Buffon so als Sparman segt.'[94] On the right there is a scale of 2 feet 10 inches 'Rijnl:'.

GA 165 *Tragelaphus scriptus*: 'Zogenaamde bosbok. Hebbende de ram alleen horens, de ooy is rosser van couleur. Heeft vier spenen en de openingen in het vel als buisen daar men een vinger in steken kan, bij dezelven als de rhebok en rietrebok alhier, heeft ook geen larmiers. Hij houdt zig in the bossen, men vind hem niet eerder dan omtrent 60 uren oost van de Caap. Hij maakt dikwils een geblaf als een hondt. R:J:Gordon den 30st febr: 1778 (sic). Hij set de hairen der rug niet op als de springbok.'[95] On the right there is a scale of 2 feet 6 inches. A similar engraving was published by Allamand (1781, pl.15).

GA 166 *Antidorcas marsupialis*. A watercolour sketch, not quite finished. Text: 'Springbok. Ram en ooy horens, larmiers, vier spenen en een galblaas, geen borstels aan de knien.'[96] Above the animal there is a list of 12 measurements in the hand of D, including length (from nose to tail) 47¼ inches, shoulderheight 29¼ inches.

GA 167 *Redunca arundinum*: 'Caapse zogenaamde rietreebok. De ram. In het hottentots a,ei,a, een sissende slag op ieder syllabe.'[97] On the right there is a scale of 2 feet 11 inches 'Rijnl.' A similar engraving was published by Allamand (1781, pl.13). On the verso of this drawing there is a long text in the hand of C, here summarized: 'No preorbital glands, 4 teats. It lives in small groups, sometimes in pairs. It is not found within 100 hours from the Cape. The red and other reebok live in the mountains, but appear to belong to this species. I have not had a chance to clarify this. Length from note to tail 4'5" rijnlands, length of tail 12½ inches.' – This is followed by some more general notes about the antelopes: 'Some antelopes have "larmiers" (preorbital glands), some have 2, others 4 nipples. There are 2 species with two tubes near the nipples where one can insert his finger. In some species both sexes have horns, in others the males only. Some have long, others short hair. In some animals the horns are bent forward, in others backward, and a few are straight. All have a gall-bladder, although it is said that it lacks in the duiker, which has not been ascertained. Some live in large herds, others in small ones. Some stay in one place, others migrate when water or food become scarce. During these migrations they are easily killed, both by wild animals and by people. The antelopes are good to eat. They are fast and can jump far. Most reproduce once a year, in September, but some twice because many calves are seen in April. They get either one or two young, which can run fast even when only 8 days old. They make a sound as if someone is sneezing. The horns continue to grow every year, females have thinner and shorter horns. The eland cannot be called an antelope. All these animals can easily be tamed if they are caught young, but they often die

91. GA 161 'This skin of the unknown animal I sent to the Cabinet in The Hague in 1779.'

92. GA 162 '*Coedoe* of the Cape of Good Hope . . . called *geib* in the Namaqua language. It has 4 teats and a gall-bladder.'

93. GA 163 'This is the beautiful animal which is called *eland* at the Cape, *canna* in the Hottentot language, of which the first syllable is pronounced with a loud click. In Caffer language it is *inpoof*. It is one of the most common grazing animals here, it is found in the interior in troups of 50, 60 up to 200 and 300 together, near most places with water. At the Cape it is almost exterminated, but it is still found in the mountains which start in Hottentots Holland, and it is amazing which steep places this heavy animal is able to climb. I estimate that usually it weighs 700 to 800 ponds.'

94. GA 164 'This animal is called *bontebok* at the Cape, *toeroego* in the Hottentot language. Both male and female carry horns, preorbital glands, two teats and a gall-bladder. This specimen was a female of one year, not yet full-grown. R.J.Gordon. They live in large groups and they are good to eat. It is not the *Guib* of Buffon as was said by Sparrman.'

95. GA 165 'So-called *bosbok*. Only the male has horns, the female is more reddish in colour. It has 4 teats and it has openings in the skin like tubes where one can enter with a finger, also found in the rhebok and rietrebok; it has no preorbital glands. It lives in the forests, at a distance of at least 60 hours from the Cape. It often barks like a dog. R.J.Gordon, 30 February 1778. It does not raise the hairs on the back like the springbok.'

96. GA 166 '*Springbok*, both male and female have horns, preorbital glands, 4 teats and a gall-bladder, no brushes at the knees.'

97. GA 167 'Cape so-called *rietreebok*. The male. In the Hottentot language it is called a,ei,a, with a hissing click on each syllable.'

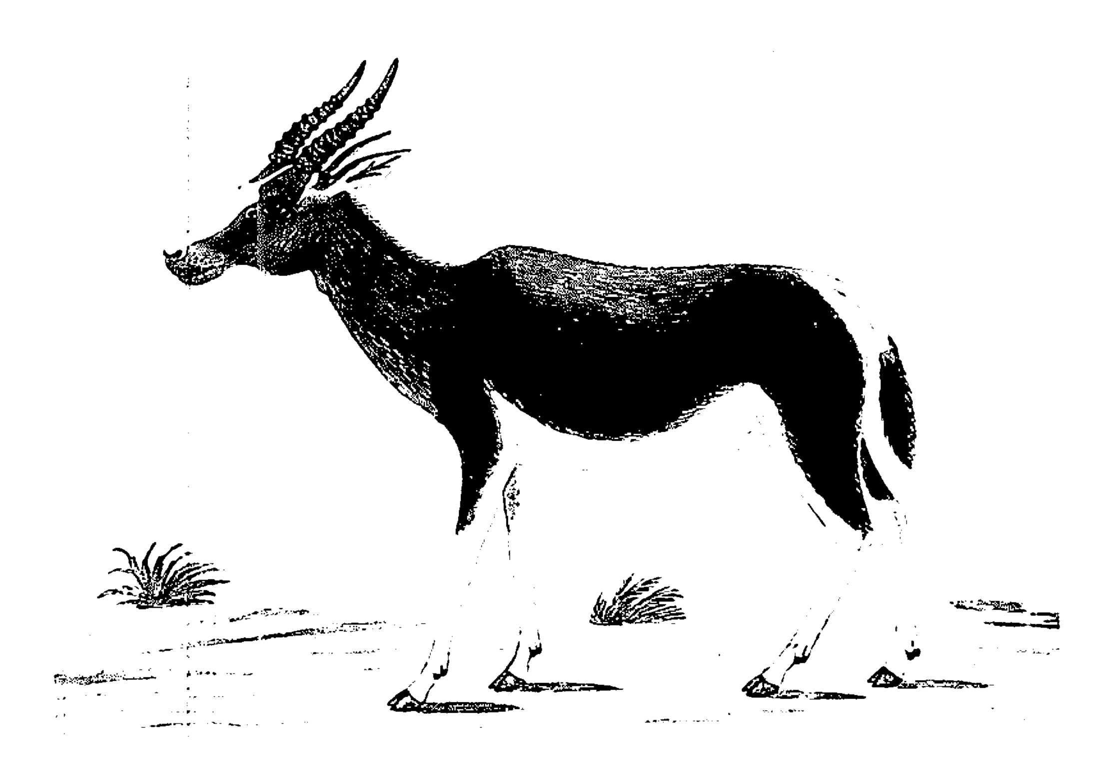


Fig. 35 Gordon Atlas (GA 164): Bontebok *(Damaliscus dorcas)*.

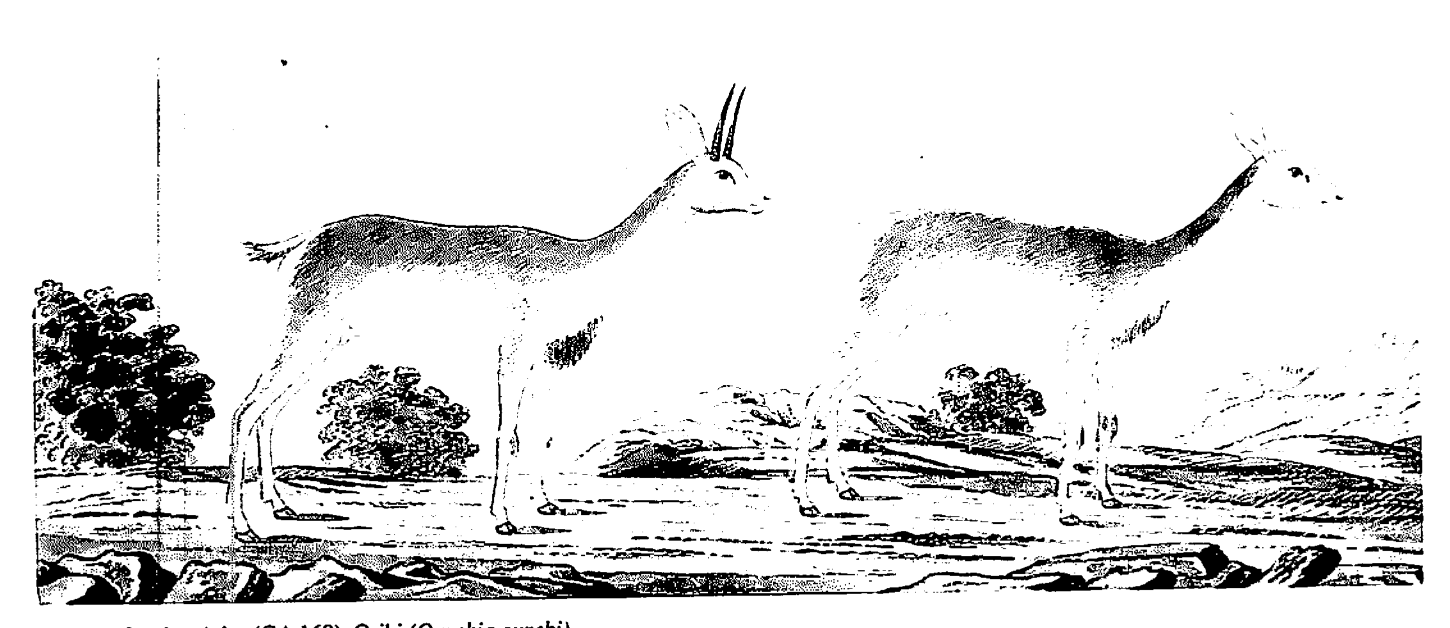


Fig. 36 Gordon Atlas (GA 169): Oribi *(Ourebia ourebi)*.

from convulsions. All have 8 incisors, 24 molars, in total 32 teeth.'

GA 168 *Redunca arundinum*: 'Rietrebok genaamt. De ooy. De ram heeft horens, agter sneeuwberg.'[98] Above the animal there is a list of 7 measurements in the hand of D, including length (nose to tail) 4 feet $3\frac{1}{4}$ inches, shoulderheight $33\frac{1}{2}$ inches. On the right there is a scale of 2 feet $9\frac{1}{2}$ inches 'Rijnl.' A similar engraving was published by Allamand (1781, pl.14).

GA 169 *Ourebia ourebi*: 'Oerebi ram en ooy.'[99] Two animals in a landscape, one on the left with horns, the other without. On the right there is a scale of 2 feet 4 inches 'Rijnlands maat.'

GA 170 *Ourebia ourebi*. An unfinished watercolour of the female only. Text: 'Oerebi, de ram heeft horens, de ooy geen.' Below there are 4 lines of notes in the hand of C: 'Deese gazelle

98. GA 168 '*Rietrebok*, the female. The male has horns, behind Sneeuwberg.'

99. GA 169 '*Oerebi* male and female.'

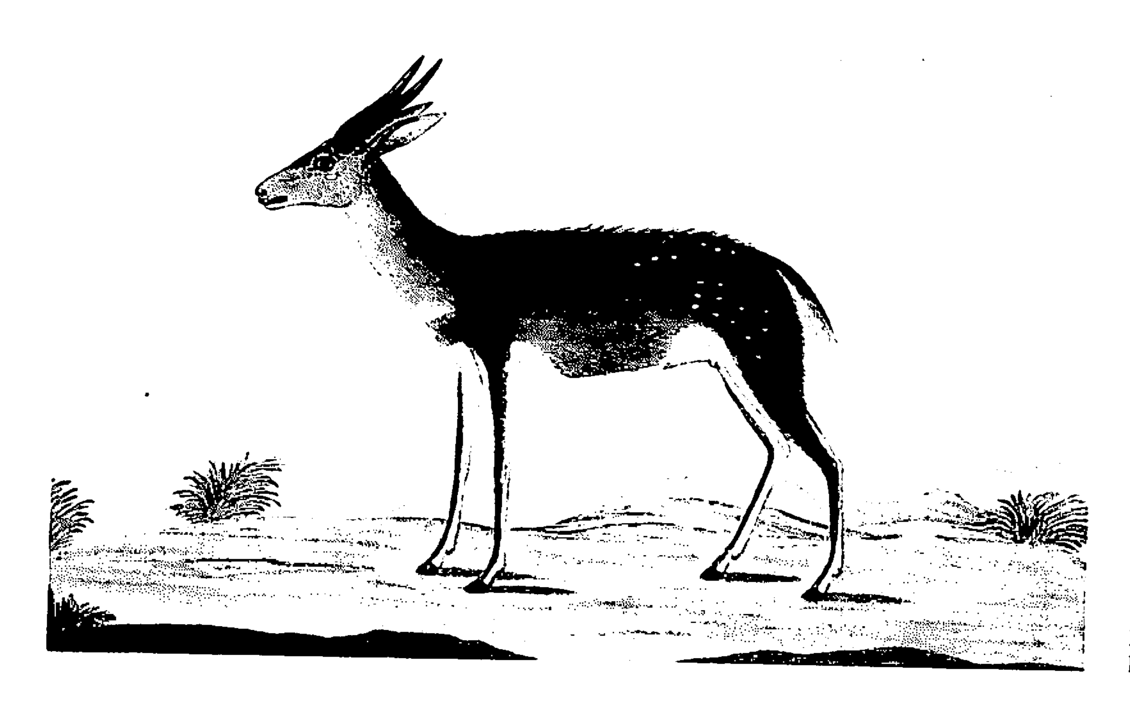


Fig. 37 Gordon Atlas (GA 165): Bushbok *(Tragelaphus scriptus)*.

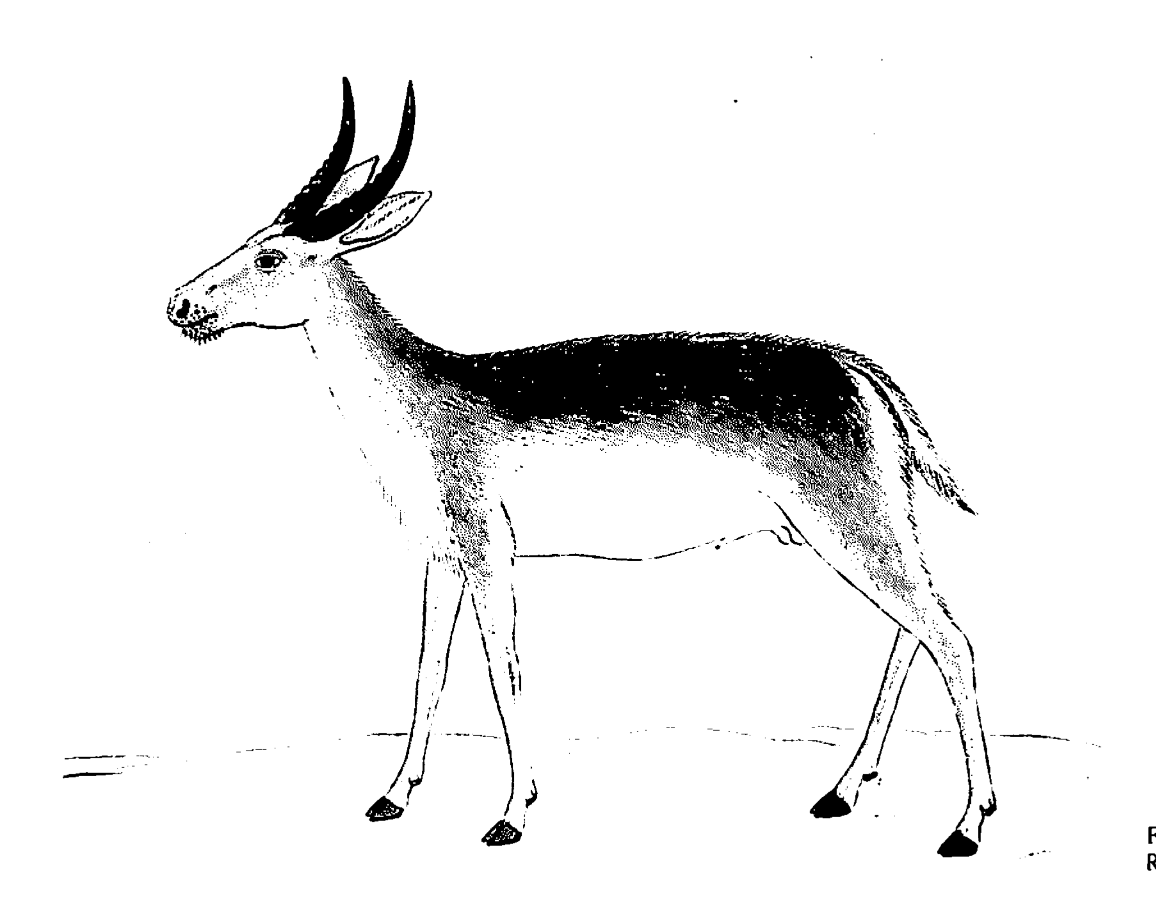


Fig. 38 Gordon Atlas (GA 167): Reedbuck *(Redunca arundinum)*.

word Oerebi door ons, na het hottentots, genoemt. De ram heeft horens, die klein en regt zijn, omtrent als onse steenbok. Heb er nog geen kunnen schieten. Hij heeft vier speenen en larmiers, en galblaas. En de enigste gazelle of hartebok in dit land, die ik ken, die pluimen hair onder en voor de knien heeft. uE zult aan het vel zien, dat dit dier insgelijks lang en wittagtig sagt haair voor de borst heeft. Hij houd zig zelden meer als twee tezamen, in ruygte, zo wel als riet fonteynen op, evenals de rietreebok, en is als alle gazellen, of zoo als men ze hieten wil, seer lekker wild. Men vind hem ook niet, dan ver van de Caap.' On the right there is a scale of 2 feet 4 inches 'Rijnl.' Above the drawing there are some remarks about the colour in the hand of B: 'Een

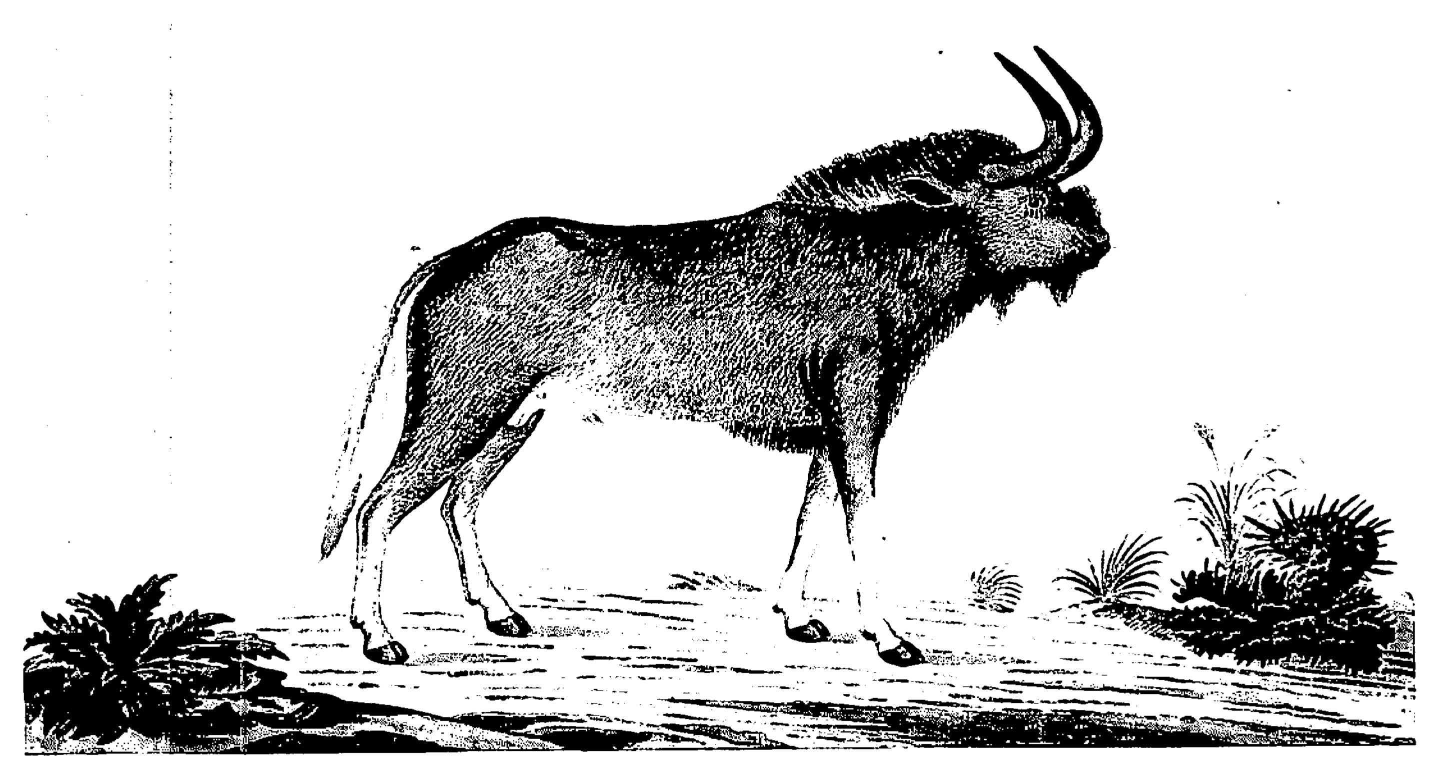


Fig. 39 Gordon Atlas (GA 182): Black wildebeest *(Connochaetes gnou)*.

witte streep over het oog, de neusgaten swart. binnen in de ooren witt. Om de bek en onder de bek wittagtig. het overige is geel roodagtig. de staart is swart. Lengte van snuyt tot staart drie voet, negen en een half duym. 't oog is swart.'[100] An engraving like this animal and the female of GA 169 was published by Allamand (1781, pl.12).

GA 171 *Raphicerus campestris*: 'Caapse steenbok. Ram, en ooy. Dese dieren worden niet alleen steenbok, maar ook bleekbok en vlaktebok, en ook wel alleen bok genaamt, door de inwoonders aan de Caap. Sij houden sig (in bosjes en struiken in droge plaatsen) en niet in troppen. Sij hebben larmiers en de ram alleen horens. Hebbende vier spenen en een galblaas, hebbende in de plaats van ergots agter ieder poot alleen een kale plek. Sij sijn seer geswint in het lopen en sijn lekker wilt.'[101] The drawing shows the male, with horns, on the left and the female without horns. On the left there is a scale of 1 foot 11 inches 'Rijnl.' Except for some bushes, this drawing is very similar to GA 172.

GA 172 *Raphicerus campestris*. Like GA 171. Text: 'Dese dieren hiet men aan de Caap steenbok, ook bleekbok en vlaktebok. Zij houden sig in struiken en bosjes in droge streken als onse haasen, en niet in troppen. Sij hebben een galblaas en vier spenen. Zijnde zeer geswint in het lopen, hebbende in de plaats van twee ergots, agter ieder poot, alleen een kaale plek.'[102]

GA 173 *Pelea capreolus*: 'Caapse sogenaamde reebok, de ram alleen twe regte en dunne horens. Vier spenen.'[103] The animal only is shown, without horns.

GA 174 *Pelea capreolus*. The animal in the same position as in GA 173, but with a sketch of the background. On the left there is a measurement: '[B] 4 V. van begin d. snuyt tot einde van de staart naa de stoerling' explained 'vier voet van t'begin der snuit tot het eind der staart volgens de ronte.'[104] On the right there is a scale of 3 feet 5 inches.

GA 175 *Oreotragus oreotragus*: '[E] Klipspringer Ram' and 'De ooy geen hoorens. Houden sig altijd in steile krantsen en gebergtens als de gems in Switserland. Vier spenen, larmiers

100. GA 170 '*Oerebi*, the male has horns, the female hasn't. . . . This gaselle is called Oerebi by us, after the Hottentot name. The male has horns, which are small and straight, like those of our steenbok. I have not been able to shoot one. It has 4 teats, preorbital glands and a gall-bladder. It is the only kind in this country, which I know, with bushes of hair underneath and in front of the knees. You can see from the skin, that this animal also has long and whitish soft hair on the breast. It is rarely found but in pairs, in bushes and in reed near water, like the rietreebok. It is tasty game like all gaselles, or whatever you would call them. It is only found far away from the Cape.' . . . 'A white stripe above the eye, the nostrils black. White inside the ears. Whitish around and underneath the mouth. The rest is yellow reddish. The tail is black. Length from mouth to tail 3 feet 9½ inches. The eye is black.'

101. GA 171 'Cape *steenbok*. Male and female. The inhabitants of the Cape call these animals not only steenbok, but also bleekbok, vlaktebok or just bok. They live in bushes and shrubs in dry places, not in groups. They have preorbital glands; only the male has horns. It has 4 teats and a gall-bladder, and in place of the ergots behind each leg there is only a spot without hairs. They are very fast in running and nice to eat.'

102. GA 172 'These animals are called at the Cape steenbok, or bleekbok or vlaktebok. They live in bushes and shrubs in dry places like our hares, and never in groups. They have preorbital glands, and only the males carry horns. They are tasty to eat. They have a gall-bladder and 4 teats. They run fast. Instead of 2 ergots behind each leg, they only have a spot without hairs.'

103. GA 173 'Cape so-called *rheebok*, only the male has two straight and thin horns. Four teats.'

104. GA 174 'From the beginning of the muzzle to the end of the tail 4 feet following the curves.'

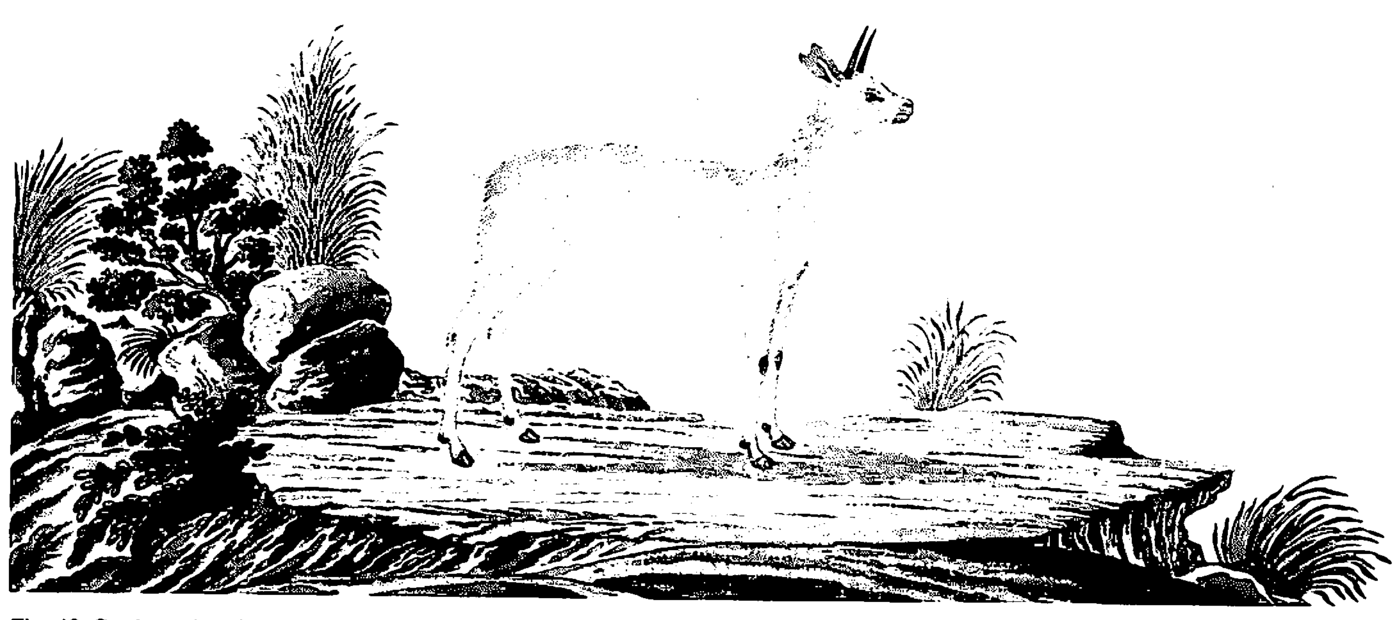


Fig. 40 Gordon Atlas (GA 175): Klipspringer *(Oreotragus oreotragus)*.

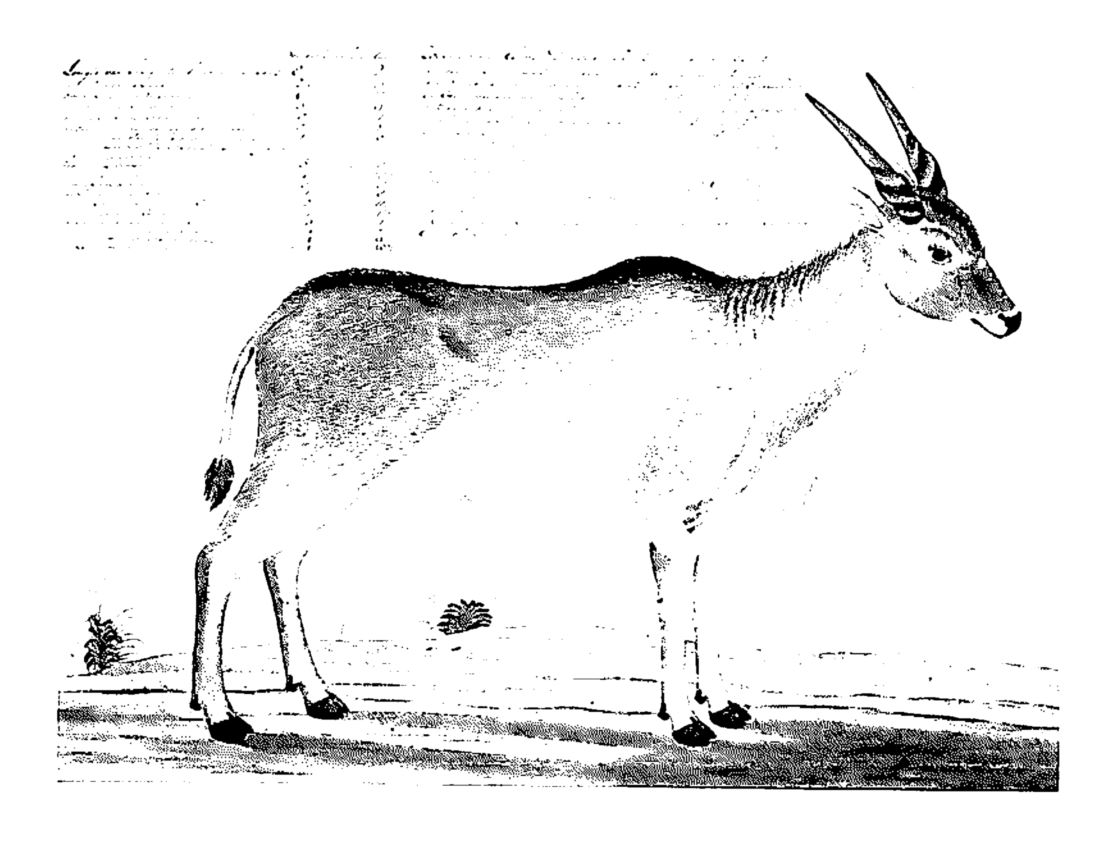


Fig. 41 Gordon Atlas (GA 163): Eland *(Taurotragus oryx)*.

en galblaas.' Above the animal: '[E] Hoogte van vooren 1 voet 10½ duym, van agteren 2 voet.'[105] On the right there is a scale of 2 feet.

GA 176 *Oreotragus oreotragus*: '[E] Klipspringer Ooy' and 'Houden sig altijd in the steile krantsen en gebergtens als de gems in Switserland.'[106] The animal is without horns. On the left, inside the drawing, there is a scale of 1 foot 11 inches 'Rijnl.'

GA 177 *Sylvicapra grimmia*: 'Caapse sogenaamde duiker.

105. GA 175 'Klipspringer male . . . The female does not have horns. It lives in steep places like the chamois in Switzerland. Four teats, preorbital glands and a gall-bladder. . . . Height in front 1 foot 10½ inches, behind 2 feet.'

106. GA 176 'Klipspringer female . . . It lives in steep places like the Swiss chamois.'

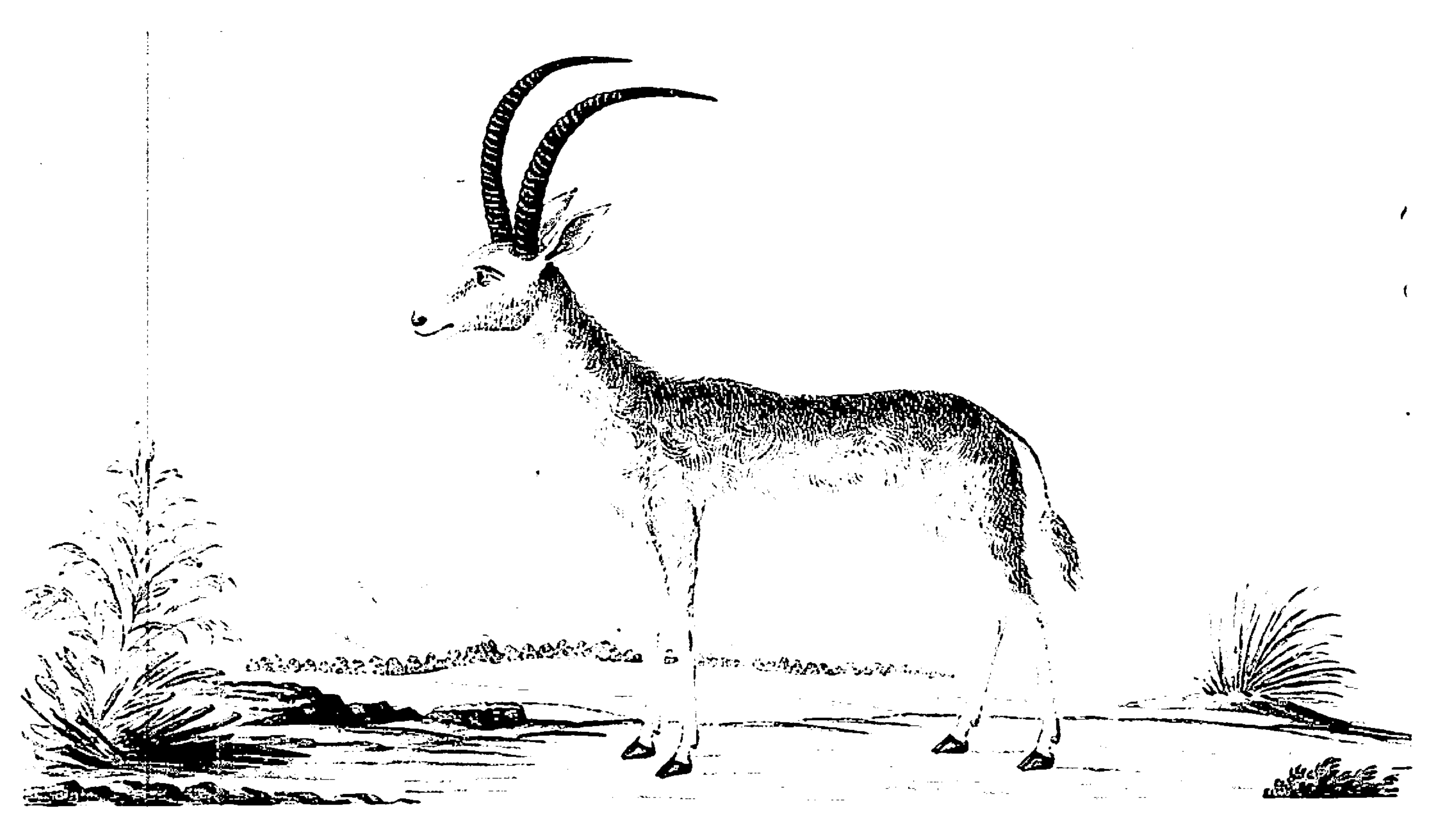


Fig. 42 Gordon Atlas (GA 159): Bluebock *(Hippotragus leucophaeus).*

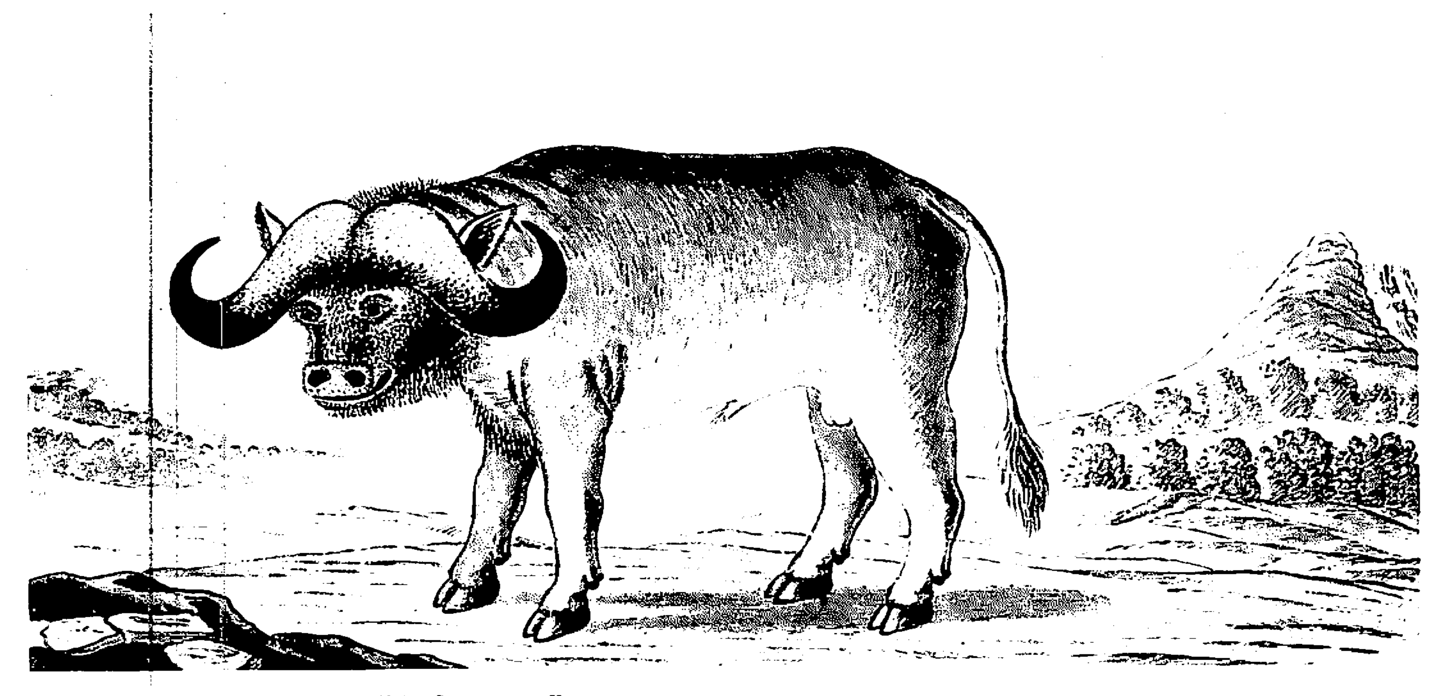


Fig. 43 Gordon Atlas (GA 181): Buffalo *(Syncerus caffer).*

De ram is ook iets kleiner als de ooy. Dit dier word ook kuifduiker genaamt na het pluimtje of kuifje dat hij tussen de horens heeft. En is dit dier de regte Grimme, of het welk de heer Grim geschreven heeft aan de Kaap gesien te hebben, het is het sonderlingste dier in dese soorten. Omdat hij de enigste is die geen galblaas heeft en niets bitters in de vars opengesneden lever. Sommige der wijfjes, dog weinigen, hebben ook horens, hij is veel groter als de steenbok of grijsbok. Hebbende allen die een kuif, in het midden tussen de horens, en in de wijfjes ook op deselfde plaats. Loopt hard en met het hoofd laag, waardoor hij die naam gekregen heeft. Sijn larmiers sijn breed en als een halve maan. Hier seggen onse inwoonders dat hij sijn gal heeft, dog dit is een porus ceriferus. Is lekker wilt, dus men heeft de heer grim ten onregte den oorlog aangedaan. Vier spenen. [De

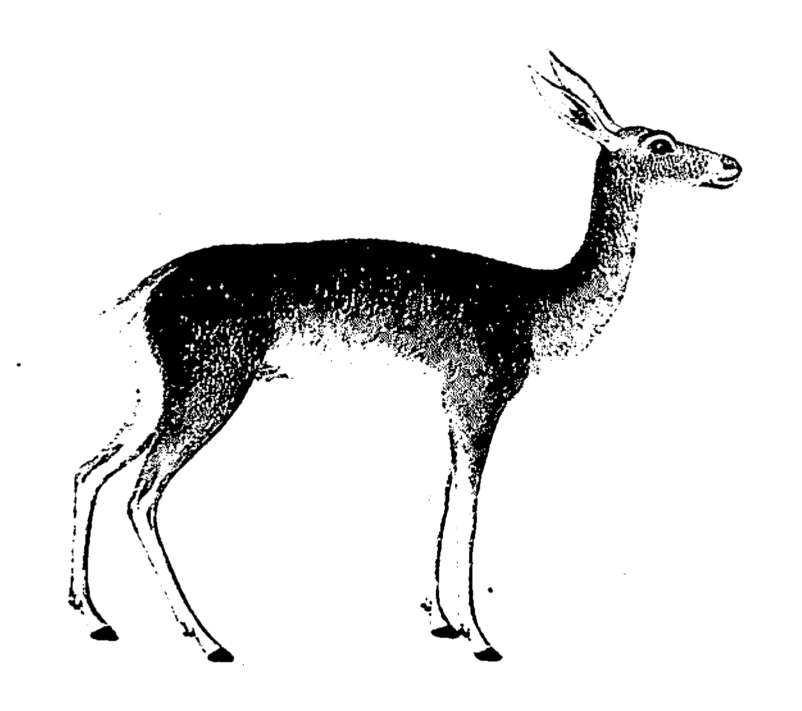


Fig. 44 Gordon Atlas (GA 173): Grey rhebock *(Pelea capreolus)*.

Fig. 45 Gordon Atlas (GA 157): Gemsbok *(Oryx gazella)*.

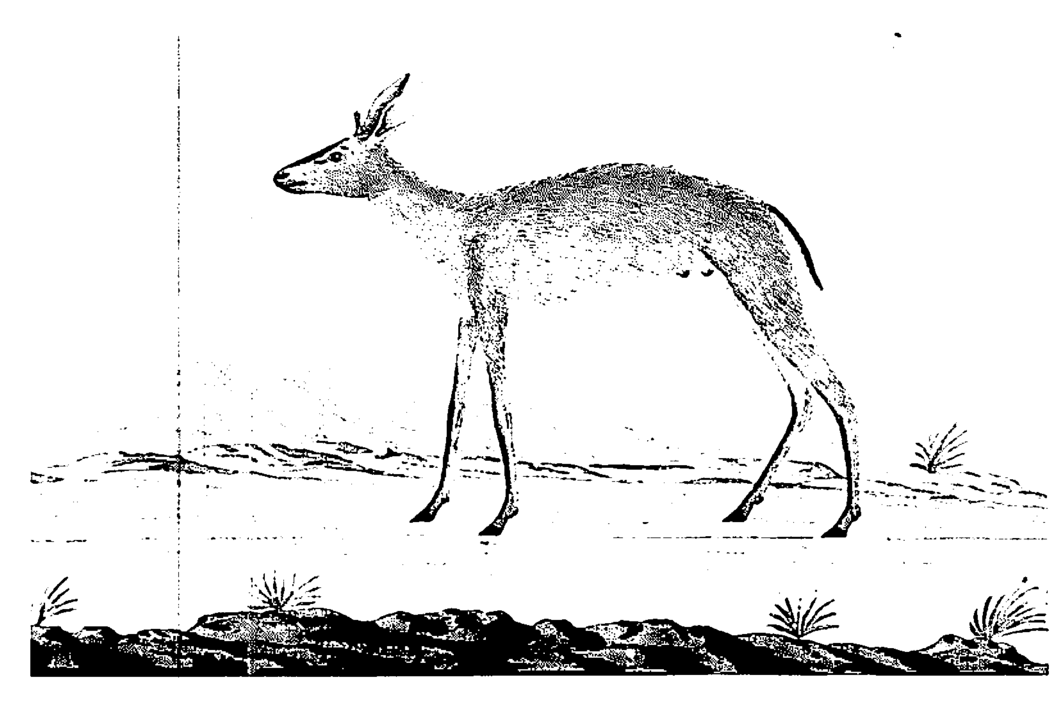


Fig. 46 Gordon Atlas (GA 178): Common duiker *(Sylvicapra grimmia)*.

larmiers] sijn niet met een gat als bij de steenbok, dog een kale streep daaruit als een spons wanneer men er op drukt een lijmagtig vogt uit de diverse porus koomt. Het welk bitter smaakt en wat na terebintijn ruikt.'[107] The animal on the drawing has horns. On the right there is a scale of 2 feet 2 inches 'Rijnlands Maat.'

GA 178 *Sylvicapra grimmia*: 'Caapse duiker, de ooy. NB: Dit dier heeft geen galblaas, en is de enigste der gasellen, dewelke ik ken sonder galblaas. Dit individu had even kleine horens voor de kuif.'[108] The animal on the drawing is a female without horns. On the right there is a scale of 2 feet 2½ inches 'Rijnlands Maat.'

GA 179 *Raphicerus melanotis*: 'Caapse grijsbok Ram en Ooy. Heeft larmiers, vier spenen en een galblaas.'[109] On the left is a male with horns, and on the right a female separated by a tree. Both have a scale of 22 inches 'Rijnlands Maat' beneath them.

GA 180 *Philantomba monticola*: 'Caapse ńomgo, het kleinste soort der gasellen. Houden sig in de bossen langs de oostkust.'[110] Beneath the animal there is a scale of 22 inches.

GA 181 *Syncerus caffer*: 'Caapse buffel.'[111] Nice finished watercolour with landscape, no scale.

GA 182 *Connochaetes gnou*: 'Caapse sogenoemde bosbuffel, ook wilde beest genaamt, in het hottentots nou.'[112] Finished drawing, no scale.

GA 183 Domestic bull: 'Namacqua bul, van J:de Beer, den 14 oct 1778'[113] and 5 dimensions.

GA 184 Domestic cow and calf: 'Caapse koey en kalf. den 16 oct 1778'[114] with 5 dimensions.

GA 185 Domestic bull: 'Een Caapse os, lieseman genaamt, van J:de Beer in Camdebo, den 11 oct 1778'[115] with 5 dimensions. Illustrated by Forbes (1965, fig.33).

GA 186 Domestic sheep: 'Caapse ram uit de Camdebo'[116] with 6 dimensions written by B.

GA 187 Domestic sheep. 'Binnenlands Africaans schaap uit het Einiqua land der Hottentotten, R:J:Gordon. De ram, allen gladharig als een geit met lange dunne staarten.'[117]

GA 188 Domestic sheep: 'Binnenlandse Africaans schaap uit het Einiqua land der hottentotten. R:J:Gordon. De ooy, allen

107. GA 177 'Cape so-called *duiker*. The male is a bit smaller than the female. The animal is also called *kuifduiker* (tufted duiker) regarding the tuft of hair between the horns. This animal is the true Grimme, which Mr Grim described from the Cape, and it is the strangest of these animals. Because it is the only one without gall-bladder and there is nothing bitter in the liver when it is cut open. Some of the females, but not many, also have horns. It is much bigger than the steenbok or grysbok. They all have a tuft of hair in the middle between the horns, and the females in the same place. It runs fast with the head kept low, which gave it its name. Its preorbital glands are broad and shaped like a small moon. Our inhabitants say that its gall is located there, but it is a porus ceriferus. It is tasty game, so Mr Grim was erroneously contradicted. Four teats. The preorbital glands do not have a hole like the steenbok, but there is a bare stripe from which a glue-like liquid appears when it is pressed like a sponge. This liquid has a bitter taste and smells like turpentine.'

108. GA 178 'Cape duiker, the female. Note: This animal does not have a gall-bladder, and it is the only kind of gaselle known without it. This specimen had small horns in front of the tuft.'

109. GA 179 'Cape *grysbok*, male and female. It has preorbital glands, 4 teats and a gall-bladder.'

110. GA 180 'Cape *nomgo*, the smallest kind of gaselle. It lives in forests along the east coast.'

111. GA 181 'Cape buffalo.'

112. GA 182 'Cape so-called *bosbuffel* (wood-buffalo), also called wildebeest, or nou in the Hottentot language.'

113. GA 183 'Namacqua bull, belonging to J.de Beer, 14 October 1778.'

114. GA 184 'Cape cow and calf. 16 October 1778.'

115. GA 185 'A Cape ox called Lieseman, belonging to J.de Beer in the Camdebo, 11 October 1778.'

116. GA 186 'Cape male goat from the Camdebo.'

117. GA 187 'African sheep found in the Einiqua country of the Hottentots. R.J.Gordon. The male, all are smooth-haired like a goat with long thin tails.'

gladharig als een geit met lange dunne staarten.'[118]

GA 189 *Equus burchellii.* Illustrated in Palmer (1951). Text: 'Onbekent dier in nov 1777 geschoten, R J Gordon. Soort van kwagga of eer een basterd van een kwagga en zebra. Hij was onder een trop canna's of caapse elanden, daar men nooyt zebras of kwaggas onder siet. De staart scheen afgebeten.' There is a list of 7 measurements in the hand B, including length from nose to tail 8 feet 3¾ inches, and shoulderheight 4 feet 5½ inches. Gordon first thought this to be a unicorn on account of the straight manes. Later he added: 'Thans den 22 febr: 1790 heb ik uit het einiqua bosjesmans land een diergelijk vel van die soort van zebra gekregen en is daar bij apparte troppen. Dese had een grijswitte staart en is dus geen vermengsel maar een aparte soort van zebra.'[119]

GA 190 *Equus quagga.* Illustrated in Tuyn (1966, figs.1,2) and Rookmaaker (1980, fig.2). A similar animal is engraved by Allamand (1781, pl.6). ~~Title~~: 'Een jonge kwagga, de eerste syllabe word met een harde klap der tong uytgesproken, wij spreken dit hottentots woord zonder klap uyt. Mogelijk is dit dier de onagre.' There are 4 dimensions measured in 'maat' which equals 26¼ inches: shoulderheight 33¾ inches, height at the rear 34¼ inches, length from head to tail 43¼ inches, length of tail 14 inches (in hand B). There is also a note on the colour: '[B] Van de knie an tot aan de voeten bleeke lever couleur wie ok beede knie. de Rug tot an de streepen an de beuk is brün tot an de tepeltjes.' On the back of the drawing is a long description written by C, translated by Tuyn (1966:75): 'Dit dier was een merrie veulen, en liep neffens andere veulens, zijn moeder, die in een trop van omtrent 70 oude kwaggas liep, na. Ik joeg hem te paard in, en hem van de trop afsnijdende, verloor hij hun uyt het gesigt, waarna hij mijn paard vanzelf als zijn moeder volgde. Dit doed een jonge zebra ook. Dit ver in het bosjesmans land zijnde, liet ik hem den anderen dag, bij gebrek aan melk om hem optevoeden, weglopen. Dit beest was 2 voet 10 duim rijnlands van voren hoog, van agteren een duym hoger en van kop (begin der snuyt) tot staart 3 voet 7¼ duim lang, en de staart dien platagtig is 14 duim lang. Zij worden van de taille van de zebra, en houden zig niet bij de zebraas op. Hun geluid is een schielijk na een, blaffend gejank, daar veel kwak, kwak inkomt. Zij zijn goed om te eeten, het vlees is egter wat soetagtig, onse boeren lusten het niet, dog de hottentotten gaarne. Wanneer een hond hen te digt bijkomt, schopt hij sterk, en er zijn gevallen dat hij hem met zijn tanden opgevat heeft. Dus zijn de hyenaas, hier wolven genaamt, voor hem bang. Men vind deese dieren nu niet digt bij de Caab. Tussen dit veulen en een volwassen is bijna geen onderscheid als in de groote. Egter vind men geelagtige enkelde individuen. Het verschil tussen de merrie en hengst is ook gering. De kop van een volwassen kwagga is iets groter in proportie. Ik heb enige boeren hen in de wagen zien gebruiken. Zij trekken zeer goed, en zijn taay en sterk, dog quaadaardig, bijtende en schoppende, egter houd men hen voor tammer van aard dan de zebra.'[120]

GA 191 *Equus zebra*: 'Zebra of Caaps wild paard.'[121] On the right there is a scale of 4 feet 6 inches 'Rijnlands maat.'

GA 192 *Equus burchellii*: 'Naderhand heb ik dese zebra gesien, en deselve had de staart. R:J:Gordon, Ao.1790.'[122] This is a remark continuing from that on GA 189. The animal lacks stripes on the belly, buttock and legs. Underneath there is a scale of 8 feet 4 inches 'Rijnlandse Maat.'

GA 193 Five bushmen drawings of animals: 'Nog bosjemans tekeningen.'[123] Reproduced by Willcox (1986:38)

GA 194 Two bushmen drawings: 'Tekeningen der chinese bosjesmans hottentotten agter de sneeuwberg.'[124]

GA 195 Six bushmen drawings: 'Tekeningen zo als de sogenoemde chineese bosjesmans met bolus, en oore, verwen, ook houtskool op de klippen tekenen.'[125]

GA 196 Three bushmen drawings, on the back of GA 194. Reproduced by Willcox (1986:38)

GA 197 *Hippopotamus amphibius.* Finished drawing without scale. Below there is a long text by Gordon: 'Hippopotamus aan de Caap zeekoei genaamt, door de hottentotten kauw, met een klappende slag der tong, tegelijk uitgesproken. In het caffers invoekoe. Van het mannelijk geslagt. In de Plettenbergs rivier, gelegen agter de sneewbergen, omtrent 7 graden oost van de Caap en de 30st graad zuiderbreete, geschoten den 20 nov 1777. R:J:Gordon. Dit dier is ruim soveel in het water als op het land, binnen in het land zijn zij te ver van de zee om er ooyt te koomen, langs de kusten gaan zij tot buiten de brandings, verscheide uren ver van de ene rivier na de andere. Zij leven van gras en ook van in het water groeyende planten, en derselver bollen. Zij lopen verscheide uren ver over landt. Hebbende als

118. GA 188 'African sheep from the Einiqua country of the Hottentots. R.J.Gordon. The female, all are smooth-haired like a goat with long thin tails.'

119. GA 189 'Unknown animal shot in November 1777, R.J.Gordon. A kind of *kwagga*, or rather a hybrid between *kwagga* and *zebra*. It was found among a group of cannas or Cape elands, where one never finds zebras. The tail appeared bitten off . . . Now, 22 February 1790, I received a similar skin of this kind of zebra from the country of the Einiqua bushmen, and it lives there in distinct groups. This one had a grey-white tail and is not a hybrid, but a separate species of zebra.'

120. GA 190 'A young *kwagga*, the first syllable is pronounced with a loud click of the tongue; possibly this animal is the onagre.' . . . 'From the knee to the feet pale liver colour, also both knees. The back up to the stripes of the belly is brown up to the teats.' 'This animal was a young female, and it ran behind his mother together with other young ones, in a group of some 70 old kwaggas. I went after it on a horse and having cut if off from the group, it did no longer see them, after which it just followed my horse as if it were the mother. A young zebra does the same. Because this was far into the country of the Bushmen, I let it run away the next day due to a lack of milk to raise it. This animal was 2 feet 10 inches high in front, an inch higher in the back, and its length from head (muzzle) to tail 3 feet 7¼ inches, and the flat tail 14 inches long. They reach the same size as the zebra, but they don't live together. Their sound is a barking yelp, quickly succeeding each other, with a lot of kwak, kwak. They are nice to eat, but their meat is a little sweet; our farmers don't like it, but the Hottentots do. If a dog comes too close, it kicks badly, and there are cases known that it caught the dog with its teeth. Therefore the hyenas, here called wolves, fear it. These animals are at present not found near the Cape. There is no difference between this young and the adult ones except in size. However, there are some specimens which are more yellowish. The difference between male and female is also small. The head of an adult kwagga is somewhat larger proportionally. I have seen some farmers who use them in their wagons. They pull well, they are tough and strong, but malicious, biting and kicking, but it is considered easier to tame than the zebra.'

121. GA 191 'Zebra or Cape wild horse.'

122. GA 192. 'Later I saw this zebra, and it had a tail.'

123. GA 193 'More bushmen drawings.'

124. GA 194 'Drawings of the Chinese Bushmen Hottentots behind the Sneeuwberg.'

125. GA 195 'Drawings like they are drawn on the rocks by Chinese Bushmen with bolus, iron, paint and charcoal.'



Fig. 47 Gordon Atlas (GA 200): Hippopotamus *(Hippopotamus amphibius)*.

zij lopen een logge draf als een varken, en zomwijlen een logge galop. Iemandt moet snel ter been zijn, wanneer hij hun bijblijft. Zij zijn vervolgd of gekwetst wordende kwaadaardig, vooral in het water dangereus. Anders nieuwsgierig en het geweer eens kennende schuw voor menschen. Zij kunnen een uur lang en langer onder water leggen alsof zij sliepen. Ook op de bodem heen en weer wandelen, eviterende elkander alsof zij op het land liepen. Zij vegten verschrikkelijk tegen malkanderen zodat men er weinigen ziet, of zij hebben er tekenen van in hunne huid en gebroken tanden. Zij staan in het land vegtende op hun agterste poten en bijten zig dus.'[126] There is a note on the colour and a list of 16 dimensions, including length from nose to tail following the back 11 foot 8¾ inches, height in front 5 feet.

GA 198 *Hippopotamus amphibius.* Drawing with a long text in the hand of C underneath: 'Hippopotamus van het vrouwelijk geslagt, aan Gamtous rivier, oost van de Caap, geschooten den 27 January 1778. R:J:Gordon.' The bull is always larger than the cow, but not much, as the largest female shot was 11 feet long and 3 feet 10½ inches high. 'Zij hebben geen uythangende uyers, dog als sij een jong hebbende, met hunne twee kleine teepels drinkt, spuugt er zoete melk als van een koeibeest uyt. Ze werpen maar een jong op het land, hetwelk direct alsof door instinct na het water loopt, en dikwils de koey al swemmende op de rug gaat sitten. Kan niet seeker bepalen hoelang zij dragen, dog gisse minder als een oliphant.'[127] 'The meat of young animals is good to eat. The fat can be drunk, even for illnesses.' – Above the animal there is a list of 10 dimensions.

GA 199 *Hippopotamus amphibius.* Two figures of the upper and lower jaws of the hippopotamus. Both are described in some detail including measurements of the teeth.

GA 200 *Hippopotamus amphibius*, foetus: '[D] Foetus van de hippopotamus, hier zee koe genaamt, zijnde van het mannelijk geslagt. Lengte van snuyt tot staart rhynlands 3 voet 2 duym. De klaauwen zijn week elasticq, en voor om gebogen. Men kon de tanden voelen, en de oogen waaren bijna volmaakt. De navelstreng met klijne roode ronde knopjes,' and by Gordon 'Bijna voldragen, Van Plettenbergs revier, den 20 November 1777.'[128]

GA 201 *Hippopotamus amphibius.* Three figures of the tail and the anal area of the female: 'De Hippopotamus koei met de staart opgeheeven verbeeld.'[129] There is a detailed description with various measurements of the tail, anus and vagina.

GA 202 *Hippopotamus amphibius.* Three figures of the anal area of the female. The figure on the right is a sketch used for GA 201, the other two figures show the animal from the side. There are some notes by Gordon on the bones, and on the anatomy of the heart: 'het hart heeft het foramen ovale gesloten,

126. GA 197 'Hippopotamus, called *zeekoei* (sea cow) at the Cape, by the Hottentots *kauw*, pronounced with a loud click of the tongue. In the Caffer language it is *invoekoe*. A male. Shot in the Plettenbergs river, behind the Sneeuwberg, about 7 degrees east of the Cape and the 30th degree southern latitude, 20 November 1777. R.J.Gordon. This animal is as much in the water as it is on land. In the interior they are too far from the sea to reach it, but near the coast they swim into the sea, for several hours, from one river to another. They eat grass and plants growing in the water, and their bulbs. They walk for several hours over land. When they walk, they have a heavy step like a pig, and sometimes they run. One needs to be fast to keep up with them. They become malicious when wounded or followed, and especially dangerous in the water. Otherwise they are curious, but they fear people once they know a gun. They can lie in the water for an hour or longer as if they are asleep. They can also walk about on the bottom of the rivers, evading each other as if they were on land. They fight terribly among each other, and there are few without signs in their skin or broken teeth. When they fight, they stand on land on their hind legs and bite each other.'

127. GA 198 'Hippopotamus, female, shot in the Gamtous river, east of the Cape, 27 January 1778. R.J.Gordon.' . . . 'They do not have external udders, but when they are with young, the two small teats produce sweet milk like that of a cow. They give birth to one calf on land, which immediately walks to the water as if by instinct, and often it will sit on the back of the swimming mother. I am not sure how long they carry their young before birth, but probably less than an elephant.'

128. GA 200 'Foetus of the hippopotamus, here called *zeekoe*, a male. Length from nose to tail 3 feet 2 inches. The claws are elastic and bent forwards. One could feel the teeth, and the eyes were almost perfect. The umbilical cord with small red round knobs' . . . 'Almost mature, Van Plettenbergs river, 20 November 1777.'

129. GA 201 'Hippopotamus female with raised tail.'

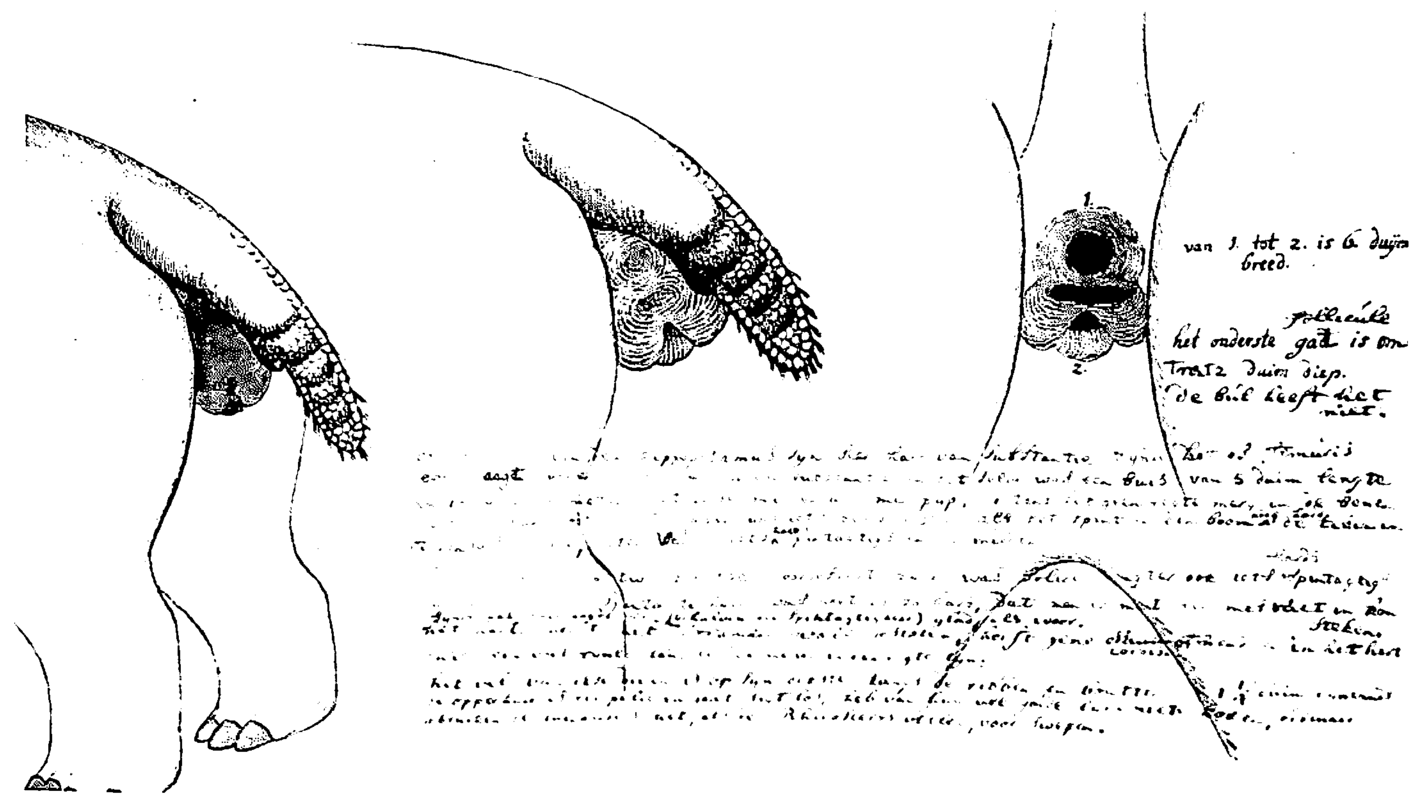


Fig. 48 Gordon Atlas (GA 202): Hippopotamus *(Hippopotamus amphibius)*.

heeft gene ossicula cordis of beenderen in het hart, en is 1 voet rijnl: langste diameter in regte lijn.'[130]

GA 203 *Hippopotamus amphibius*. Two drawings of the normal and extended penis. There are notes, by C, on the penis, and on the bones, the latter similar to those on GA 202. Similar to PA 19.

GA 204 *Hippopotamus amphibius*. Three figures of a foot, and of the anal region of the male seen from behind. There are lengthy notes by C on the appearance of the feet.

GA 205 *Diceros bicornis*. Side view of the black rhinoceros, illustrated by Rookmaaker (1985a, fig.16 in colour) and Cave & Rookmaaker (1977, fig.1). Similar to PA 17. An engraving of this animal was published by Allamand (1781, pl.5). All rhinoceros drawings in the Gordon Atlas were discussed in detail and illustrated in Cave & Rookmaaker (1977) with anatomical comments by Dr A.J.E.Cave, London. Above the animal is a scale of 9 feet 'rijnlands' and some notes by Gordon: 'Rhinoceros bul, geschoten bij begin der Gamka of leeuwen rivier, in het zuidergedeelte van africa. Hij hiet in het hottentots nabab, de *na* met een harde klap uitgesproken. In het caffers inkoemboe. Zij lopen meest twe en 3 bijeen, ook somtijds meer, krijgen maar een jong, men moet wel 150 uren reisen, eer men er een ziet, doordien zij in den omtrek van de Caap uitgeroeit zijn. Den 2 nov: 1778, R:J:Gordon.' On the back there is a long description of the animal, written by C (Cave & Rookmaaker 1977, pl.7, pp.147,149 English translation): '[hij heeft ook] stijve swarte hairtjes 2 lijnen lang, hier en daar tusschen de naden van het vel, en eenigen om het oog. Aan de bovenrand van het oor sijn sij stijver en 2½ duym lang. Tusschen Bul en Koey omtrent een onderscheid als in de hippopotamus en meer niet. Zijn oog is maar 8 lijnen langste diameter, en dit ¾ duym diep in sijn rimpelige oogleden, soo dat hij niet vooruyt kan sien* en maar het geene in de klijne gesigtslijn komt. Zoo ras hij iets verneemt, draayt hij er zig met het hooft na toe, als schijnende sig meer op sijn reuk en gehoor, als op zijn gesigt te vertrouwen. egter draayt en slingerd hij sijn kop veel in het loopen, dat hij harder dan een paard kan doen, egter ontwijkt men hem ligt, als men onder de wind blijft, sijnde zij anders zeer dangereus, als hij de grond opploegd, maakt hij veeltijds twee vooren, doordien hij het hoofd opzij slingerd, loopende en springende heen en weeder als dol met de staart regt uyt. Van het vegten met den Oliphant heb ik nooyt iets vernomen, zijn geluid is een geknor en sterk geblaas bijna als fluit. Sijn vel is niet so dik als de hippopotamus zijnde maar ¾ duym dik. de reeten dewelke hetselve in alle directies doorloopen formeeren meer ronden, daar de hippopotamus vierkant meest formeerd, maar een linie diepte. hij heeft een plooy van 3 duym diep bij de lies, en een van een duym agter het blad bij het begin der ribben. een plooy een en drie quart duym diep agter de ooren, negen plooyen boven de lies en vier voor de borst; allen deese plooyen formeeren sig door de beweging van het dier. ik ben verwonderd geweest over het verschil van de Caapse rhinoster en die in Buffon verbeeld was. De bovenlip van dit dier heeft geen andere beweging als de lippen* van de meeste dieren. hij heeft geen tanden voor in den muil en 7. tanden in ijder kaak dus 28. in 't geheel, de bovensten hebben de buyten

130. GA 202 'The heart has a closed foramen ovale, there are no ossicula cordis or bones in the heart, and it is 1 foot in the longest diameter in a straight line.'

sijden iets langer so dat sij als over de ondersten, schijne te sluiten. men gebruykt sijn vel voor sweepen, en het vlees wordt gegeeten en lekker gehouden, als hij niet te oud is, hij heeft (3?) nagels of liever hoeven aan ijder voet, en een losse sool onder se voeten. dit dier deed ijmand den hippopotamus ten eersten in gedachten komen, uytgenomen sijn kop, welkers snuyt veel na een schildpad gelijkt. de hoorens sitten aan het vel ½ duym bij de basis van een, op een bolle hoogte van het voorhoofd dat glad is, egter kan men deselve met force maar even verwiggelen. hij doed so veel quaad met sijn pooten als met sijn hoorens, sijn staart is boven rond en onder platagtig, heeft ook een naad waarom de hairtjes sitten als des hippopotamus. sijn couleur is donkerbruyn, en incarnase bij de buyk in de plooyen, dog doordien hij sig veel in de kley wenteld siet hy uyt als de grond, daar hij sig ophoud.'[131] Gordon added a note in his own handwriting: 'Dit heb ik bevonden op nader examinatie, veroorzaakt te zijn geweest, door de swelling in een dode rinos, een leevende heeft syne kleine ogen gelijk met de oogleden sodat hij even regt vooruit sien kan. Heb ook bevonden dat sijn bovenmuil zeer beweegbaar is, so dat hij met deselve de bosjes tot zijn voedsel na sig neemt. Van dertien rhinocerossen op mijne reise in 1779 geschoten, was er gene die so veele rimpels in het vel had als dese.' There is a list of 18 measurements (written by C) including body length from before the horns to the origin of the tail along the curve 11 feet ¼ inch.

GA 206 *Diceros bicornis*: 'Rhinoceros in het ordinaire postuur met een nederhangende kop.'[132] Similar to GA 205 except in the position of the head. Illustrated by Cave & Rookmaaker (1977, pl. 2).

GA 207 *Diceros bicornis*. Two drawings of the skull, seen from the side and from the base. Text: 'Uitgegraven skelet van een rhinoster kop van de linker sijde te sien.'[133] The size of the molars is noted, length 2½ inches, width 2 inches. Illustrated in Cave & Rookmaaker (1977, pl.4).

GA 208 *Diceros bicornis*. Six sketches with short notes showing the parietal and visceral surfaces of the liver, dorsal and ventral aspects of the tongue, the spleen and the stomach. Illustrated and discussed in Cave & Rookmaaker (1977:142, pl.6).

GA 209a *Hippopotamus amphibius*. Three drawings showing the stomach and viscera of the hippopotamus. Text: 'Ingewanden der hippopotamus van een halfwassen beest, so als zij zig de buik open gesneden zijnde, en op de rug leggende zig vertonen.'[134] The drawing of the viscera is similar to pl.III, that of the stomach to pl.IV in Allamand (1781).

GA 209b *Hippopotamus amphibius*: 'Tekening der hippopotamus met de muil open.'[135] Sketch of the animal in sideview.

GA 210 *Diceros bicornis*. Drawing of the rhinoceros head and horn seen from the front. Text: 'Rinoster kop van voren. Dus kan hij niet regtuit zien. Zijn vel drie quart duim dik. Dog dit dier was opgeswollen doodgeschoten zijnde, in grote somer hitte. De ogen sitten, so als naderhand in levenden vond, gelijk met de leden sodat sij wel vooruit sien kunnen, egter niet so wel als een hippopotamus.'[136] Illustrated in Cave & Rookmaaker (1977, pl.3).

GA 211 *Diceros bicornis*. Three drawings of the foot, the eye and the extended penis with some short notes. Illustrated and discussed by Cave & Rookmaaker (1977, pl.5).

GA 212 *Potamochoerus porcus*: 'Caaps wildvarken. sijnde het regte wilde swijn: het sogenaamde bosvarken heeft geen incisiven en woond in gaten dat het sig, als buisen, in the grond graaft. Dit wild varken was nog niet halfwassen, en een sogge,

131. GA 205 'Rhinoceros male, shot at the beginning of the Gamka or Leeuwen river, in the southern part of Africa. It is called *nabab* by the Hottentots, the *na* pronounced with a loud click. The Caffers call it *inkoemboe*. There are usually 2 or 3 together, sometimes more, they get only one young. One has to travel some 150 hours before it is seen, because it is exterminated near the Cape. 2 November 1778, R.J.Gordon' . . . (*verso*) '(It has) stiff black hairs, 2 lines long, here and there between skin grooves and some around the eye. On the upper edge of the ear they are stiffer and 2½ inches long. The differences between male and female are like the hippopotamus, and that is all. Its eye is 8 lines only in longest diameter, and is located ¾ inch deep inside its wrinkled eyelids, for which reason it cannot look ahead* and sees only what appears in its restricted field of vision. When it hears something, it turns its head in that direction, seemingly trusting its smell and hearing better than its sight. However, it often turns and swings its head when walking, which it can do faster than a horse. But one easily avoids it by staying downwind, because they are very dangerous otherwise. When it ploughs the ground, it often makes two furrows because it swings its head sideways, walking and jumping to and fro madly with tail outstretched. I have never heard anything about its fighting with an elephant. Its sound is a grunt and strong blowing, almost like a flute. Its hide is not as thick as that of a hippopotamus, only ¾ inch thick. Many wrinkles run through the hide in all directions, forming round areas of the skin, where the hippo has square ones, only 1 line deep. It has a groove, 3 inches deep, near the groin and 1 inch deep behind the shoulderblade near the beginning of the ribs. There is a groove 1¾ inch deep behind the ears, 9 grooves on the ribs, ½ inch deep; further two small grooves above the heel and four below the breast; all these grooves are formed by the animal's movements. I have been surprised by the difference between the Cape rhinoceros and that shown in Buffon. This animal's upper lip has no movement other than that of most animals. It has no teeth in the front part of its mouth, and 7 teeth in every jaw, thus 28 in all. The upper teeth have somewhat longer outer sides, so that they seem to fit over the lower ones. Its hide is used to make whips and the meat is eaten and said to be tasty when the animal is not too old. It has 3 nails or rather hooves on each foot and a loose under-sole. This animal at first looks like a hippopotamus, except for the head, which snout looks like that of a tortoise. The horns are attached to the hide ½ inch apart at their basis, on the convex summit of their smooth forehead. But it can be moved a little by force. It does as much harm with its legs as with its horns. Its tail is round above and flattish underneath and it has a seam around which the hairs are located as in the hippopotamus. Its colour is dark-brown and it is flesh-coloured inside the belly grooves but it often wallows in mud and so resembles the ground on which it lives. It was killed at a distance of 118 paces with a 10-to-the-pound bullet.'

(Footnote by Gordon:) 'I have found, on further examination, that this was caused by the bloating of the dead rhinoceros. A living one has its small eyes on the same level as the eyelids, so that it can look straight ahead. I also found that its upper lip is extremely moveable so that it uses this lip to grasp its food. Among 13 rhinos killed during my trip in 1779, none had so many skin grooves as this one.'

132. GA 206 'Rhinoceros in its ordinary attitude with a drooping head.'

133. GA 207 'Excavated skeleton of a rhinoceros head seen from the left side.'

134. GA 209a 'Viscera of a half-grown hippopotamus, like they are seen with the belly cut open and the animal lying on its back.'

135. GA 209b 'Drawing of a hippopotamus with open mouth.'

136. GA 210 'Rhinoceros head seen from the front. It cannot see ahead. Its skin is ¾ inch thick. But this animal was bloated after it was killed by the heat of the summer. The eyes are level with the eyelids, as I later found in living specimens, and it can see ahead, but not as well as a hippopotamus.'

de beer is seer ruig, en heeft de tanden als een Europeaans wild swijn. Zij houden sig in the ruigte langs de rivieren meest op. R.J.Gordon.'[137] On the right there is a scale of 1 foot 7 inches 'rijnlands.'

GA 213 *Potamochoerus porcus*: 'Een Caaps wildvarken, omtrent 3 maand oud. Ko, den 10 dec 1778.'[138] Below the animal there is a scale of 16 inches.

GA 214 *Phacochoerus aethiopicus*: 'Caaps bosvarken. Dit dier vind men ver in het binnenland. Heeft geen incisiven, en woond in holen in de grond, het beste paard kan hem niet inlopen. De hottentotten hieten het kóe nabab betekenende Grond- of Aard "Rhinoceros", hij is goed te eten.'[139] Finished drawing without a scale.

GA 215 *Orycteropus afer*. Three figures showing the animal from the side, the right fore and hind legs. Text: '[E] Caaps sogenaamt Aardvarken sijnde een regte miereneter van het vrouwelijk geslagt.'[140] The size is noted: length from tip of nose to end of tail, following the curve, 6 feet 2¼ inches. Illustrated in Molsbergen (1916,II, pl.8) and Rookmaaker (1980, fig.3, 1981, fig.8).

GA 216 *Bathyergus suillus*. Finished drawing without scale; text: 'Caapse duinmol, levensgrote, in sijn bijtende attitude. R.J.Gordon, de Caap den 10 July 1778.' A description is added written by C: 'In het hottentots kauw houba of hippopotamus mol. Vindende zij enige gelijkenis tusschen deselven, mogelijk door de beneden tanden en dikte van het lijf. Dit dier was van het mannelijk geslagt. Sij houden sig in de duynen langs strandt overvloedig, dus niet bergen in het land, en schoon zij geen mollen sijn, leven zij onder de aarde, makende diepe holen en lange gallerijen, en werpende aarde als de mollen in grote hopen op, sodat die dieren het paardrijden in die streeken seer gevaarlijk maken, vallende men te voet somwijlen tot ver over the knien in holen. Hun vleesch wordt gegeten en lekker geagt. Zij leven van wortelen en bollen, doende veel schaden aan de tuynen nabij de duinen gelegen. Hunnen vagt is zagt en los als van een mol, dog hunne knevels, hair aan de pooten en horizontaal platte staart, is als varkens borstels. De couleur is witagtig geel, na onderen van het lijf witter grijs. Zij zijn gevangen zijnde quaadaardig en bijten vinnig. Hunne voortgang als zij boven de grond lopen is niet snel, lopende met de pooten binnenwaards als een papagaay, hun lijf altoos op de grond houdende, dog zij vroeten in een korte tijd onder de aarde. Hunne boventanden schijnen 4 te zijn, dog zijn maar twee, brede, ieder met een diepe voor van voren als in tweën gedeeld, erg van agteren sijn sij glad, en de twee ondersten schieten iets onder en agter de bovensten, als het dier sijn boet doed, en kunne sig iets van malkanderen en tezamen bewegen. Hij heeft 16 kiesen, 4 in yder kaak, allen plat van boven, hij slaat sijn kop met een ruk omhoog, als of hij bijten wil of getergd word. Sijn ooren sijn niet buitenwaards en alleen een rond gat. Hij is 't hele jaar door wacker, dus niet in dese saak de hamsters gelijk.'[141] On the side there is a short note with 4 measurements and the number of teeth and molars.

GA 217 *Bathyergus suillus*: 'Zogenaamde Caapse duinmol, iets minder als levensgrote, doodt leggende vertoont. Dit dier schoon onder de aarde wonende, en ook de aarde in hopen als de regte mol opwerpende, kan uit hoofde van het totaal verschil, geen mol genaamt worden. den 2 aug 1777, R J Gordon.'[142]

GA 218 *Procavia capensis*: 'Dit dier word aan de Caap dasje genoemt. Het is in overvloed in alle bergen en word lekker om te eten gehouden, als een jong konyn. Mits ten eersten ontweid wordende, men zegt dat de wijfjes d'écoulement periodique krijgen.' Above the animal there are 2 dimensions: '[B] de Längte 18 duim, de hoogte 9½ duim.'[143] Below the animal there is a scale of 18 inches.

GA 219 *Xerus inauris*: 'Dit dier word ver in het land gevonden, de boeren hieten hetselve ook graatje, na het hottentots. Hij kan de staart ophouden als een eekhoorentje. Dog hout hem meest so als getekent, schuddende hem geswint in het lopen. Hij klimt nooyt op de bomen maar houdt in de grondt als de hamsters, levende van kruiden en wortelen. R:J:G: Lengte van snuit tot staart 9 duim rijnl: lengte van de staart 8 duim. Brete van de staart 3 duim. Hij heeft tanden als een rot.'[144]

137. GA 212 'Cape *wildvarken* (wild pig). This is the true wild boar: the so-called *bosvarken* (forest pig) does not have incisors and lives in tunnels in the ground. This wild pig was not yet half grown, and a female, the male is very hairy and it has teeth like a European wild boar. They live mostly in bushes near the rivers. R.J.Gordon.'

138. GA 213 'A Cape *wild varken*, about 3 months old. Ko, 10 December 1778.'

139. GA 214 'Cape *bosvarken* (forest pig). This animal is found far into the interior. It lacks incisors, and lives in holes in the ground. It cannot be overtaken by the fastest horse. The Hottentots call it *koe nabab* which means ground rhinoceros, it is nice to eat.'

140. GA 215 'Cape so-called *aardvarken* (earth pig) which is the true anteater, a female.'

141. GA 216 'Cape *duinmol*, life size, in its biting attitude. R.J.Gordon, Cape, 10 July 1778.' . . . 'The Hottentots call it *kauwhouba* or hippopotamus mole. They seem to find some likeness between them, possibly in the lower teeth and the thickness of the body. This was a male. They live in the dunes near the beach in large numbers, and not in the mountains. Although they are not moles, they live underneath the ground, where they make deep holes and long tunnels and throwing the earth on the surface in large heaps like moles, which makes it very dangerous to ride horses in those areas, and when walking one can fall in such a hole up to the knee. Their meat is eaten and considered nice. They eat roots and bulbs, and they do much damage to gardens near the dunes. Their fur is soft and loose like a mole's, but their whiskers, hair on the legs and on the horizontally flattened tail is hard like in a pig. The colour is whitish yellow, and below the body becoming more whiter grey. When caught, they are malicious and they bite terribly. They walk slowly on the ground, with their legs turned inwards like a parrot, keeping their body against the ground, but they dig very quickly. Their upper teeth appear to be 4 in number, but there are only two, wide, each with a deep groove in the front, as if they were divided into two, but on the back they are smooth. The lower teeth rest a bit under and behind the upper ones. It has 16 molars, 4 in each jaw, all of them flat on top. He jerks the head on high when it wants to bite or is pestered. Its ears are not shown on the outside and there is only a round hole. It does not hibernate, in which it differs from the hamster.'

142. GA 217 'So-called Cape *duinmol*, a bit less than life-size, shown dead. Although this animal lives underneath the ground and throws the earth in heaps like a real mole, it cannot be called a mole because it is totally different. 2 August 1777, R.J.Gordon.'

143. GA 218 'This animal is called *dasje* at the Cape. It is abundant in all mountains and it is nice to eat like a young rabbit. Once adult, it is said that the females have "écoulement periodique".' . . . 'Length 18 inches, height 9½ inches.'

144. GA 219 'This animal is found far into the interior, the farmers call it also *graatje* following the Hottentot language. It can lift the tail like a squirrel. But it usually keeps the tail as in the drawing, shaking it quickly when walking. It does not climb trees but lives on the ground like a hamster, eating plants and roots. R.J.G. Length from nose to tail 9 inches, length of the tail 8 inches, its width 3 inches. Teeth like a rat.'

GA 220 *Rhabdomys pumilio*: 'Caapse gestreepte veld muis, levensgroote. Dit is het dier hetwelk Sparman de dwergmuis genoemt heeft, dog hij heeft sig vergist, en alleen een dier dieren nog niet halfwassen gesien.'[145]

GA 221 *Otomys* sp.: 'Aardrot der binnenlanden.'[146] A similar drawing is PA 31. It is difficult to identify with certainty.

GA 222 *Bathyergus janetta*: 'Graauwe namacquas land sogenaamde mol.'[147]

GA 223 *Cryptomys hottentotus*: 'Camdeboos staalcouleure, hier genaamde mol, den 16 oct 1778.'[148] This drawing is different from GA 222 and it is not certain that both in fact show the same species.

GA 224 *Pedetes capensis*: 'Springhaas of gerbo van de Camdebo etende vertoont, den 22 oct 1778. De plaats van de Beer legt op 32 gr 6 m zuider breete omtrent 6 gr oost van de Caap. Sij leven in de grond als de konijnen en doen veel schade aan het koom. Houdende meest langs de riviertjes. Vijf klaauwen voor, vijf agter en tanden van haas of conijn geslagt.'[149] Gordon added 9 measurements, including length from nose to tail 1 foot 7 ½ inches.

GA 225 *Pedetes capensis*. Three figures of the animal. Text: 'De wijfjes springhaas, of gerbo in slapende, luisterende en etende attitude. Worden omtrent hondert uren van de Caap het eerst gevonden, en meest onder sneeuwberg in land. Hebben 5 klaauwen voor, 4 agter.'[150]

GA 226 *Georychus capensis*: 'Blesmol.'

GA 227 *Georychus capensis*. The position here differs from GA 226. The animal is engraved in Allamand (1781, pl.9). This drawing has a long text by C, with some additions by Gordon: 'Zoogenaamde Caapse blesmol, de Caap den 6 aug 1777. R.J.Gordon. Dit dier, schoon onder de aarde wonende en deselve als de mol in hopen opwerpende verschilt grotelijks van de mol. Levensgroote, dog omtrent een duim korter, zijnde niet volwassen. Volwassen zijn zij ordinair 8½ duim rijnlands lang van snuit tot staart volgens de ronte.' Below the drawing, C wrote: 'Dit dier word aan de Caap de Blesmol geheten. Alle deese dieren zijn zeer quaadaardig. Hij leeft even gelijk de duinmol. Zijn boventanden hebben die reten niet, dewelke in de duinmol sijn, zijne twee boventanden als vier tanden doet schijnen. Men vind hem ook niet alleen in de duinen maar in het binnenland. Hij doed veel schade in de tuinen dog maakt zulke diepe galderyen niet als de duinmol. Ik heb nooyt gehoord dat men hem eet. Hij is ordinair van dese couleur en groote, egter heb ik er gesien, die wel iets anders waren, wat meer swart, of ook minder, egter altoos die witte vlakken. Er is nog een deser soort dieren, die ik ver in het binnenland gevonden heb, dewelke veel kleinder en staal couleur of blaauwagtig was. Deese word daar staalmol geheeten, hij is even als dit dier, en geen mol.' Gordon added: 'en nog eene dewelke gansch graauw is, donkerder als de duinmol en iets kleinder dan dies.'[151] These last two species were probably later depicted on GA 222 and GA 223. There is another note on this drawing about the plate of this species published in the compilation of Hop's journey.

GA 228 *Lepus* sp.: 'Caro haas.'[152] Head and belly are white, the back darker. It cannot be identified with certainty.

GA 229 *Lepus* sp.: 'Sand haas.' Not coloured, but there is a note about it by B: 'onter de buyk witt, op de Rug is grau witt gestippelt, de staert is boven swart unten witt, de beene grau en van binnen wit.'[153] There is a list of 6 measurements including the length from head to tail 1 foot 4 inches. It cannot be identified with certainty.

GA 230 *Macroscelides proboscideus*: 'Door mij, oliphantsmuis genaamt, om sijn lange snuit dewelke hij op allerley manieren bewegen kan, sijn voorpoten veel korter als de agterpoten. Is egter seer geswind in het loopen, men vind hem in het Namacqua land.'[154] A similar drawing is PA 34.

GA 231 *Macroscelides proboscideus*: 'Oliphantsmuis, levensgrote.'[155] Two figures, different from GA 230. A similar drawing is PA 35. It was illustrated in Rookmaaker (1981, fig.4).

GA 232 *Chrysochloris asiatica*: 'Zogenaamde blinde mol aan de Caap den 1 september 1777, levensgrote, doodt leggende. R.J.Gordon.'[156]

GA 233 *Chrysochloris asiatica*: 'Andere attitudes van de blinde mol.'[157] The animal is shown from the side (as GA 232) and from the front.

GA 234 *Orycteropus afer*: '[E] Caaps sogenaamt aardvarken, sijnde een regte miereneter, van het vrouwelijk ge-

145. GA 220 'Cape striped field mouse, life size. This is the animal which Sparman called dwarfmouse, but he made a mistake, and only saw them when not full-grown.'

146. GA 221 '*Aardrot* (Earth rat) of the interior.'

147. GA 222 'Grey Namaqualand so-called mole.'

148. GA 223 'Here called mole, steelcoloured, from Camdebo, 16 Oct 1778.'

149. GA 224 '*Springhaas* (jumping hare) or gerbo from the Camdebo shown when eating, 22 Oct 1778. The farm of De Beer lies 32°6' south, about 6 degrees east of the Cape. They live in holes like rabbits and do much damage to the wheat. It is usually found along rivers. It has 5 claws in front, 5 behind, and teeth like a hare or rabbit.'

150. GA 225 'Females *springhaas* or gerbo in sleeping, listening and eating attitudes. It is first found about 100 hours from the Cape, most near the Sneeuwberg. It has 5 claws in front, 4 behind.'

151. GA 226 'So-called Cape *blesmol*, Cape 6 August 1777, R.J.Gordon This animal differs much from the mole although it lives underneath the ground and makes heaps of earth. Life-size, but about 1 inch shorter, being not yet adult. The adults usually are about 8½ inches long from nose to tail following the curve.' . . . 'This animal is called blesmol at the Cape. All these animals are malicious. They live like the *duinmol*. Its upper teeth do not show those grooves found in the *duinmol* which make 2 teeth look like 4. It is not only found in the dunes, but interior. It does much damage to the gardens, but its tunnels are not as deep as in the duinmol. I have never heard that it is eaten. It is usually of this size and colour, but some differ, more black, or less, but always those white spots. There is another of this kind of animal, which I found far in the interior, which is much smaller and steel-coloured or blueish. That one is called *staalmol*, but it is like this animal and not a mole. . . . And there is another which is all grey, darker than the *duinmol* and a bit smaller than this one.'

152. GA 228 'Caro hare.'

153. GA 229 'Sand hare . . . white under the belly, on the back greyish white spots, the tail is black above and white below, the legs grey and white inside.'

154. GA 230 'By me, called *oliphantsmuis* (elephant mouse), for the long snout which can be moved in many ways. Its front legs much shorter than the hind ones. It is very fast, and it is found in the Namaqua land.'

155. GA 231 'Elephant mouse, life size.'

156. GA 232 'So-called blind mole at the Cape, 1 September 1777, life-size, lying as dead. R.J.Gordon.'

157. GA 233 'Other positions of the blind mole.'

slagt.'[158] The animal is shown in a landscape. There is a list of 4 measurements like GA 215.

GA 235 *Orycteropus afer*: '[E] Caaps sogenaamt aardvarken. Sijnde een regte miereneter van het vrouwelijk geslagt.' Gordon added 'heeft geen incisiven maar wel kiesen agter in the kakebenen so boven als onder.'[159] Measurements are similar to GA 215.

GA 236 *Orycteropus afer*. Drawing of foetus, with text: '[C] Een Caaps zogenaamd aardvarken, zijnde een regte mieren eeter, dog niet de americaansche, het was van het mannelijk geslagt, uyt des ouders buik gesneeden en na de Caab gesonden. Bijna levensgroote leggende geteekend, uyt de oogen en andere teekenen scheen het voldragen te zijn geweest, den 16 August: 1777. R.J.Gordon.'[160]

GA 237 *Balaena glacialis*. Text by Gordon, written in English: 'From captain Ali. The right or black whale as the whalers call him, generally from 12 feet English when first calved to 60 or 70 feet long, has the whale bone or beard, is the fish generally caught about the cape of good hope.' The remainder tells how they can best be killed.

GA 238 *Macropus* sp. Text: 'Kangaroo, 140 ct.wt. Port Jackson. J.Hunter' and in Gordon's hand: 'uit Nieuw Holland.' It was discussed in 7.6.4.

Birds

GA 239 *Aquila verreauxii*: '(F) L'aigle noir' – 'swarte arend van de Caap.'[161] On the left there is a scale of 1 foot 5 inches 'Rijnlandse maat.'

GA 240 *Falco tinnunculus*: '(F) le Rochier' – 'rode gespekkelde sperwer van de Caap, in de klippen bij jagersfontein, den 14 nov.'[1778][162] There are 5 measurements including the length from head to tail 12 inches.

GA 241 *Hieraaetus pennatus*: '(F) La creserelle.' There are 5 measurements written around the bird, including length from head to tail following the curve 1 foot 1 inch. Below the animal there is a scale of 18 inches.

GA 242 *Terathopius ecaudatus*: '(F) L'aigle à dos roux.'

GA 243 *Haliaëtus vocifer*: 'Zeearend' and '(F) Le bolbusard femelle.'

GA 244 *Gyps coprotheres*: 'Caapse gier of aasvogel' with in the right top corner a scale of 2 feet 6 inches 'Rijnlands.'

GA 245 *Falco biarmicus*: '(F) Le hobereau.' The length from one tip of the wing to the other was 40 inches. On the right there is a scale with 10 subdivisions, probably inches. In the lower left corner its egg is depicted.

GA 246 *Elanus caeruleus*. Text in unknown handwriting: 'Maelela kokwau in the Bechuana tongue.'

GA 247 *Sagittarius serpentarius*: 'Secretaris' and '(F) Le secretaire.' On the right there is a scale of 2 feet 6 inches



Fig. 49 Gordon Atlas (GA 242): Bateleur *(Terathopius ecaudatus)*.

'Rijnlands Maat.'

GA 248 *Corvus albicollis*: '(F) Corbeau du cap au col blanc.' Above the bird there are 3 measurements including length 15 inches.

GA 249 *Ceryle rudis*: '(F) Martin pecheur tacheté' to which Gordon added 'Oranje rivier.'

GA 250 *Coracias garrulus*: 'Vogel uit het Cafferland.'[163]

GA 251 *Coracias garrulus*: 'Vogel uit het cafferland.'[164] The bird on this drawing and GA 250 are similar, but in reverse, and the colour of GA 250 is a little darker.

GA 252 *Hirundo fuligula*: '(F) Hirondelle nommée au Cap graauwe ou bergswaluw. Elle se voit souvent en hyver, ou les autres hirondelles s'absentent.'

GA 253 *Zosterops pallidus*: '(F) Le pipi verd' and 'van Oranjes rivier.'

GA 254 *Motacilla aguimp*: '(F) La lavandière male. On ne commence à le trouver qu'à la grande rivière.'

GA 255 *Oenanthe pileata*: '(F) Le moteux mâle' and 'levensgrote, zogenaamd schaapwagtertje. Het mannetje, zijnde een vogel die veel snagts singt en veelerhande vogels volmaakt nasingt. Zijnde zeer levendig en vrolijk in zijn eige sang. Meintjes fontein den 13 nov: 1778.'[165]

GA 256 *Lanius collaris*, juv.: '(F) La pie griesche' and 'vogel van doornrivier, soort van sogenaamde canaribijter.'[166]

GA 257 *Pericrocotus flammeus*: '(F) Pie griesche arore.' A species unknown in South Africa.

GA 258 Two birds labelled a (left) and b (right). (a) is

158. GA 234 'Cape so-called aardvarken, being the true anteater, a female.'

159. GA 235 'Cape so-called aardvarken, being a true anteater, female. . . . It does not have incisors, but there are molars in the upper and lower jaws.'

160. GA 236 'A Cape so-called aardvarken, which is a true ant-eater, but not the American, a male, cut from its mother's belly and sent to the Cape. Drawn almost life-size, it appeared mature from the eyes and other signs, 16 August 1777. R.J.Gordon.'

161. GA 239 'black eagle from the Cape.'

162. GA 240 'red spotted sparrow-hawk from the Cape, in the rocks near Jagersfontein, 14 Nov.'

163. GA 250 'Bird from the country of the Caffers.'

164. GA 251 'Bird from the country of the Caffers.'

165. GA 255 'life size, so-called *schaapwagtertje*. The male, being a bird which often sings at night and is able to imitate many birds. It is very lively and joyful in its own song. Meintjes fontein, 13 Nov 1778.'

166. GA 256 'Bird seen at the Doorn river, a kind of so-called canary-biter.'

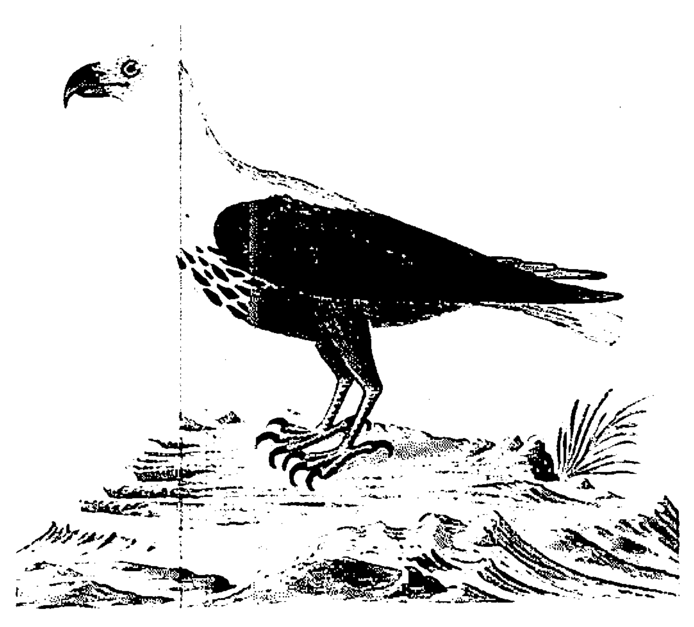


Fig. 50 Gordon Atlas (GA 243): Fish eagle *(Haliaeetus vocifer)*.

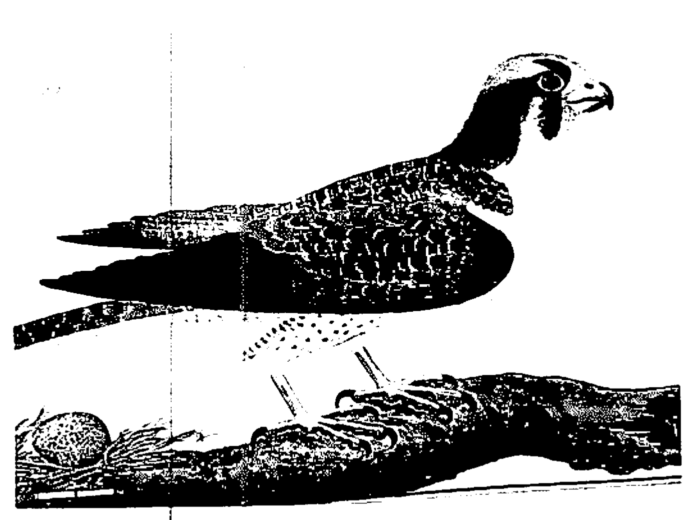


Fig. 51 Gordon Atlas (GA 245): Lanner *(Falco biarmicus)*.

Dendropicos fuscescens: 'Soort van spegt aan z: olifants rivier' and '(F) Pie a baguette d'or'; (b) is *Estrilda astrild*: 'Rooibekje, op de meeste plaatsen hier'[167] and '(F) Capi rayé.' On the tree in the background a caterpillar is drawn.

GA 259 *Telophorus zeylonus*: '(F) Pie griesche à plastron' and 'sogenaamde elandsvogel, het mannetje. Hantam den 30 dec. 1778.'[168]

GA 260 *Telophorus zeylonus*. No text. The bird is similar to that on GA 259, but the branch on which it is perched is more finished.

GA 261 *Indicator indicator*: '(F) Le grand oiseau de miel' and 'Caapse honing wijser.' A Hottentot name is given in an unknown handwriting 'Isethu.'

167. GA 258 'Kind of woodpecker at south side of Olifants river' . . . '*Rooibekje*, in most places here'

168. GA 259 'so-called *elandsvogel* (eland bird), the male, Hantam 30 Dec 1778.'

GA 262 *Monticola rupestris*: 'Klipmerl van de tafelberg.'[169]

GA 263 *Passer melanurus*: Two figures labelled a (left) and b (right). '(F) a Moineau femelle, b. le male' and 'Caapse mossen, verkeerde valey den 14 dec 1778.'

GA 264 *Glareola nordmanni*, juv.: 'Sprinkhanen vanger uit het cafferland, onlangs eerst bekend geworden.'[170]

GA 265 *Sphenoeacus afer*: '(F) Moineau de ruseau' and 'Riet mos.'

GA 266 *Pycnonotus capensis*: '(F) Merle à but jaune, vers la grande rivière. Cet oiseau a les tour de la pupiere rouge, au lieu que tous les autres ciptons. Il est d'un gris bleu.' and 'Merl. Geelgat die veel kwaad aan de druiven doet. N: oliphants rivier.'[171]

GA 267 *Cossypha caffra*: '(F) Le merle à gorge rousse.'

GA 268 *Creatophora cinerea*, juv. No text. Above the bird there is a scale of 7½ inches 'Rijnlandse Maat.'

GA 269 *Tricholaema leucomelas*: '(F) Le barbu mâle' and 'Oranjes rivier.'

GA 270 *Onychognathus morio*. The title is written above the bird within the cadre in an unknown handwriting: 'Spreuw, natuurlijke grootte.'[172]

GA 271 *Creatophora cinerea*. No text, a finished drawing.

GA 272 *Creatophora cinerea*: '(F) Menat ou blanchisseur' and 'Vogel uit het cafferland, seer onlangs gesien.'[173]

GA 273 *Creatophora cinerea*: 'Vogel uit het cafferland.'[174] All drawings of this bird, GA 271-273, differ from each other.

GA 274 *Nectarinia amethystina*: '(F) Sucrier amethyste.'

GA 275 *Nectarinia famosa*: '(F) Sucrier verd, mâle.' No background.

GA 276 *Vestiaria coccinea*: 'Vogel uit de Zuid zee van Capitein Cook, anno 1780, wiens vederen aldaar so hoog geschat worden.'[175] Signed by Webber, 1778. It is described above, 7.6.4. Illustrated in Rookmaaker (1981, fig.11).

GA 277 *Promerops cafer*. Finished drawing with title in unknown hand: 'de groote suiker vogel.'

GA 278 *Upupa epops*: 'La hupe du Cap' in Gordon's hand. On the left there is a scale of 1½ inches 'Rijnlands maat.'

GA 279 *Euplectes capensis*: '(F) Le gros bec à dos jaune' and 'geelbonte Caapse vink dewelke s . . . graauw word, levensgrote.'[176]

GA 280 *Nectarinia afra*. Two figures labelled a (left) and b (right). '(F) a:Sucrier a poitrine rouge, mâle, b. la femelle.' A similar drawing is PA 81.

GA 281 *Geocolaptes olivaceus*: '(F) Le pic toc, mâle' and 'Caapse spegt, in de klippen bij Jagersfontein 14 nov.

169. GA 262 '*Klipmerl* (rock thrush) from Table Mountain.'

170. GA 264 'Grasshopper catcher from the country of the Caffers, only recently discovered.'

171. GA 266 'Thrush. *Geelgat* which does much damage to the grapes. North of Olifant river.'

172. GA 270 'starling, natural size.'

173. GA 272 'Bird from the country of the Caffers, very recently seen.'

174. GA 273 'Bird from the country of the Caffers.'

175. GA 276 'Bird from the South Sea from Captain Cook, 1780, the feathers of which are highly estimated there.'

176. GA 279 'yellow variegated Cape finch which becomes grey in . . ., life size.'



Fig. 52 Gordon Atlas (GA 248): Whitenecked raven *(Corvus albicollis)*.

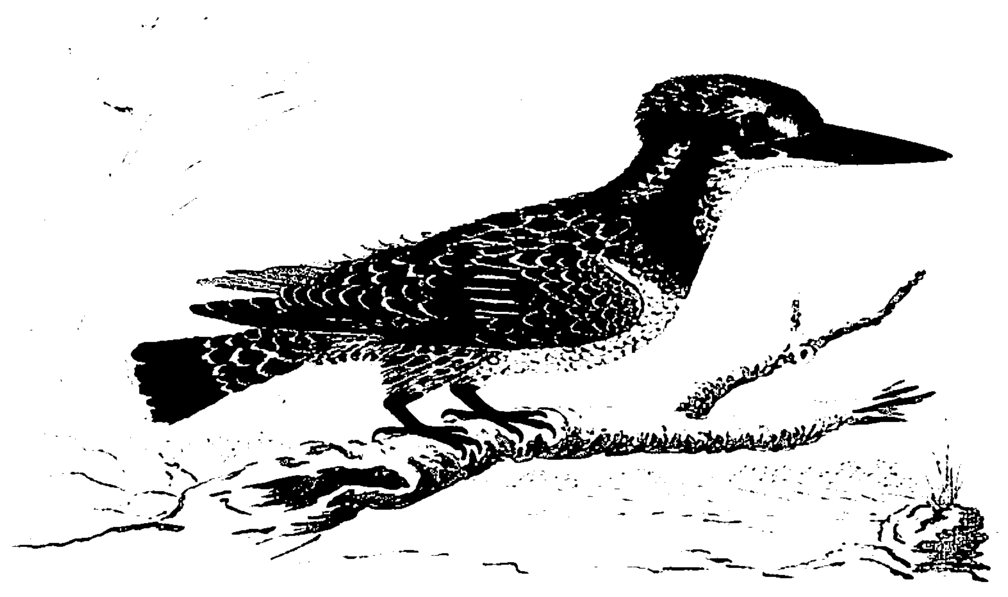


Fig. 53 Gordon Atlas (GA 249): Pied kingfisher *(Ceryle rudis)*.

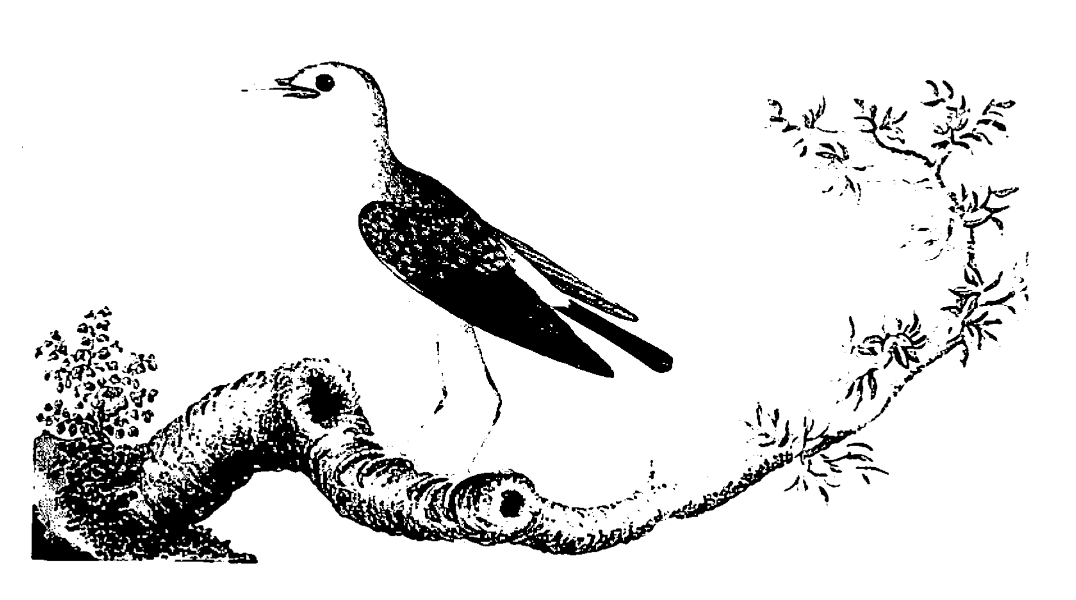


Fig. 54 Gordon Atlas (GA 268): Wattled starling *(Creatophora cinerea)*.

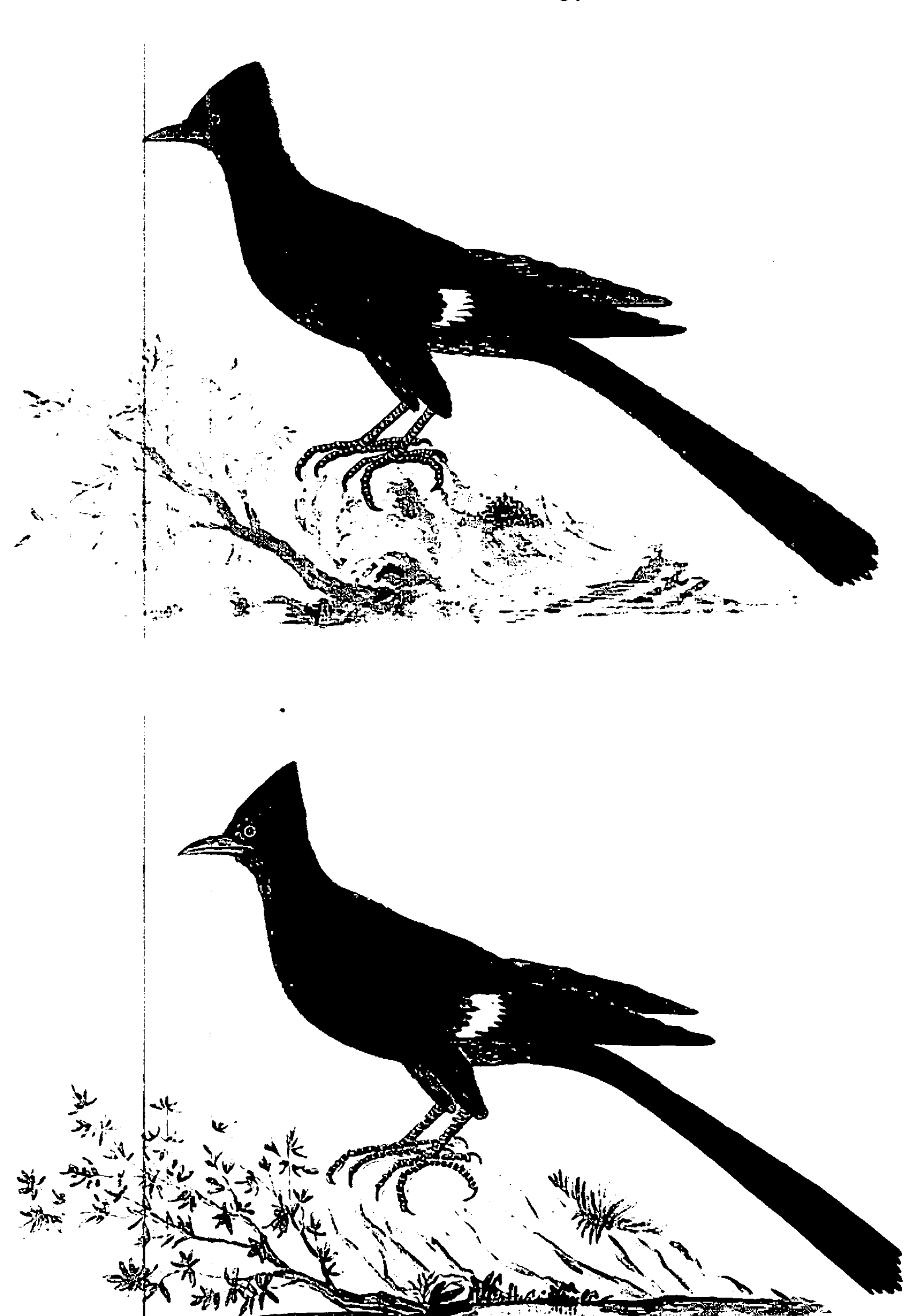


Fig. 55 Gordon Atlas (GA 291 and GA 292): Jacobin cuckoo *(Clamator jacobinus)*.

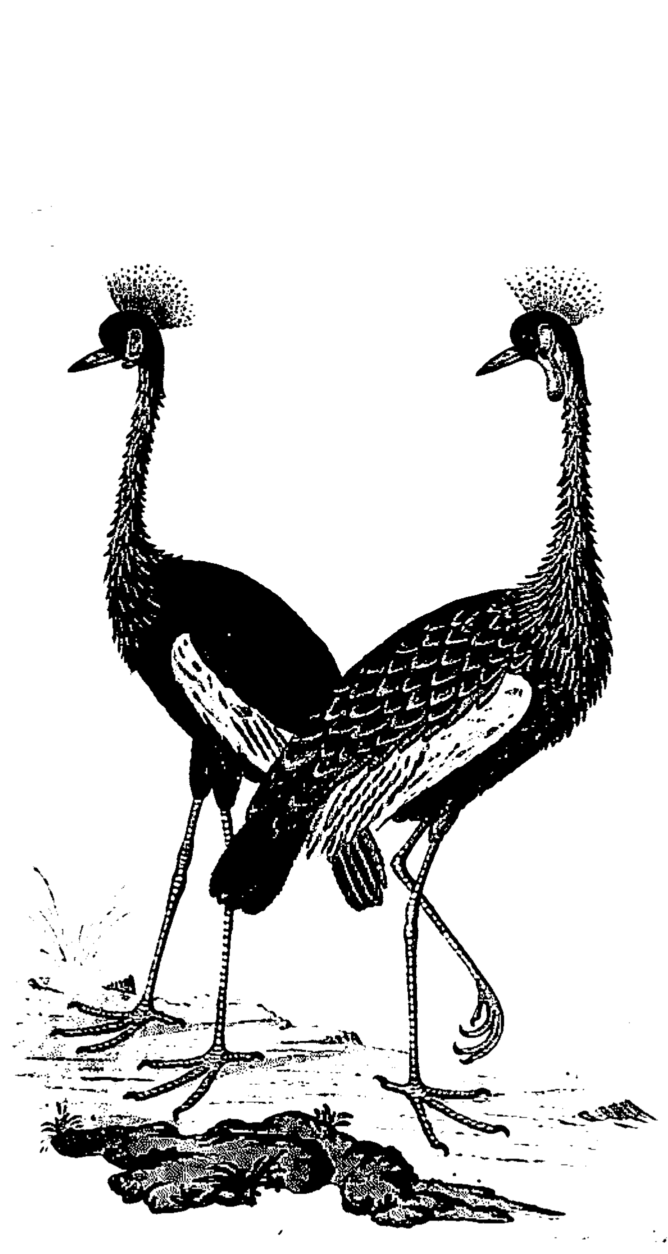


Fig. 56 Gordon Atlas (GA 316): Southern crowned crane *(Balearica regulorum)*.

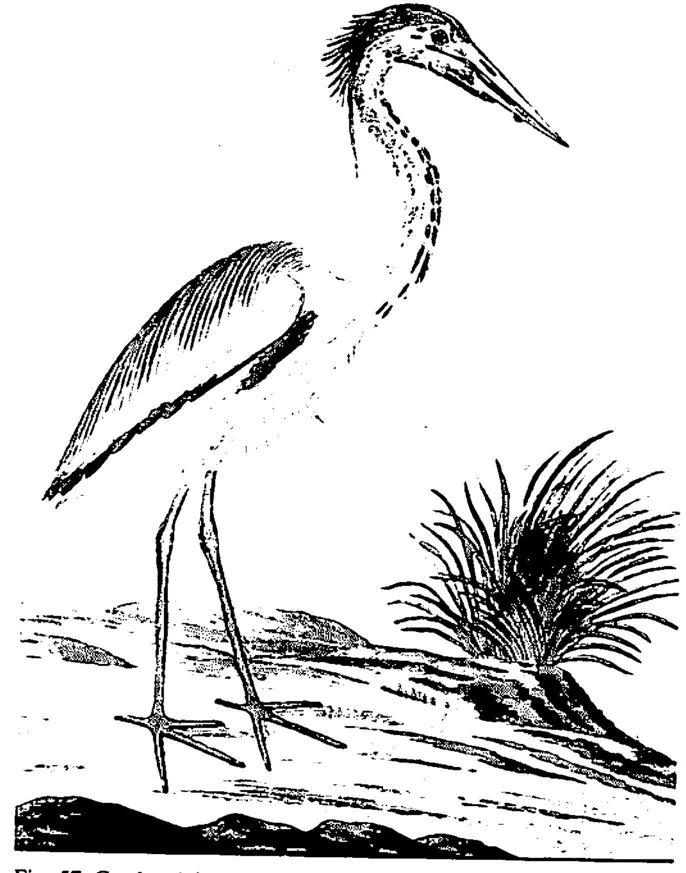


Fig. 57 Gordon Atlas (GA 317): Grey heron *(Ardea cinerea)*.



Fig. 58 Gordon Atlas (GA 326): Avocet *(Recurvirostra avosetta)*.

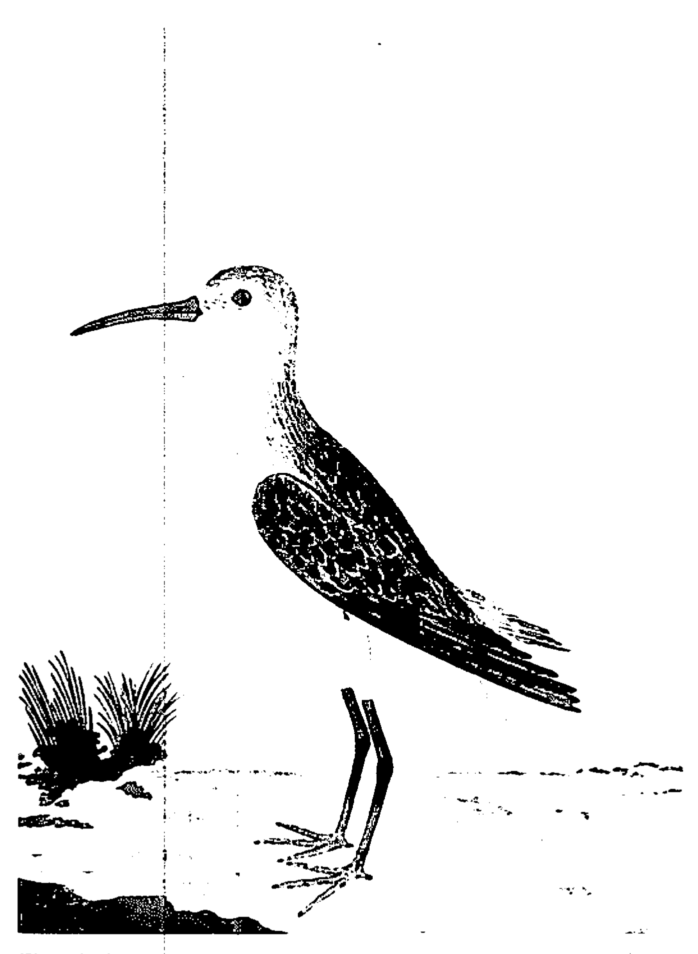


Fig. 59 Gordon Atlas (GA 327): Curlew sandpiper *(Calidris ferruginea).*

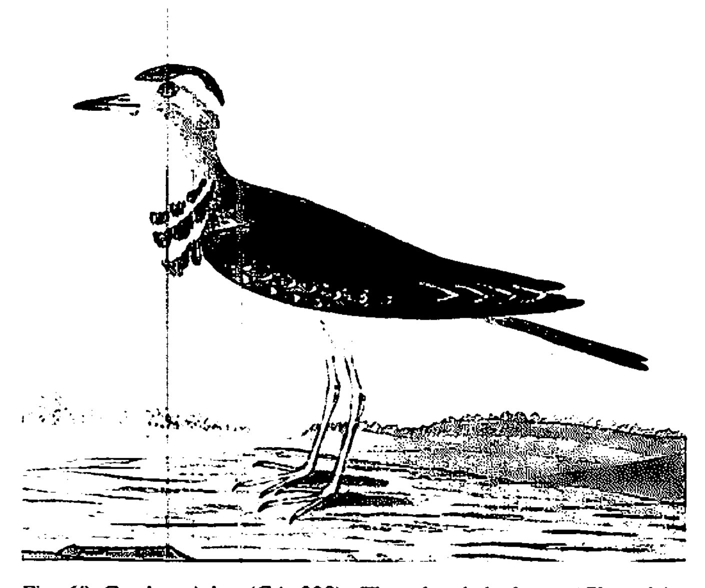


Fig. 60 Gordon Atlas (GA 328): Three-banded plover *(Charadrius tricollaris).*

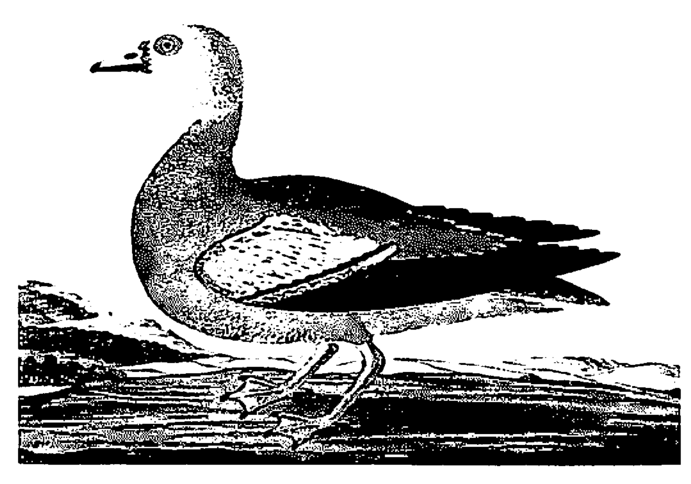


Fig. 61 Gordon Atlas (GA 341): Egyptian goose *(Alopochen aegyptiacus).*

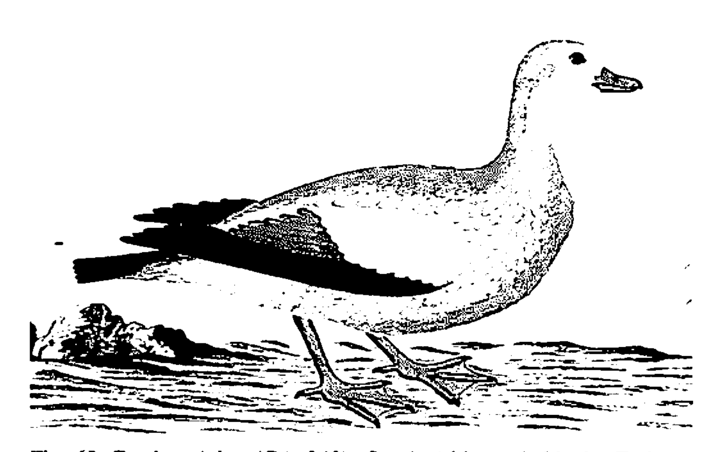


Fig. 62 Gordon Atlas (GA 342): South African shelduck *(Tadorna cana).*

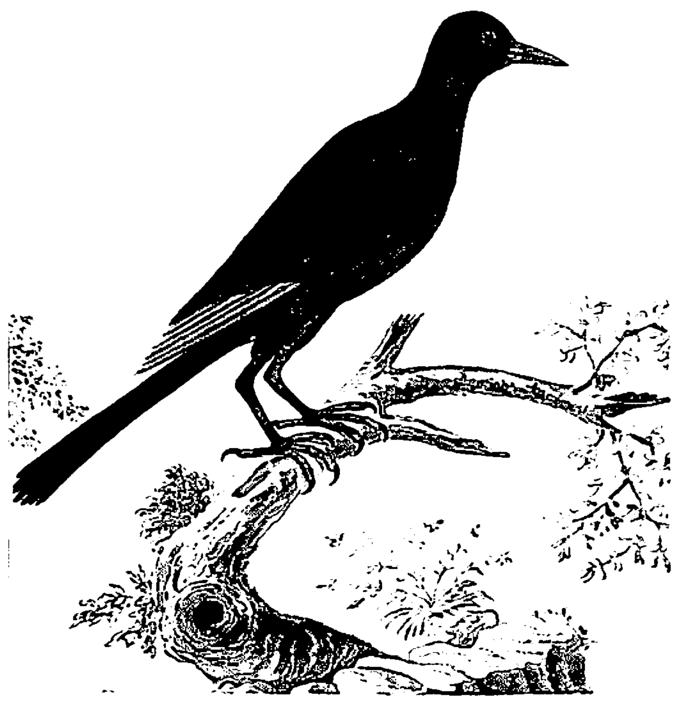


Fig. 63 Gordon Atlas (GA 270): Redwinged starling *(Onychognathus morio).*



Fig. 64 Gordon Atlas (GA 271): Wattled starling *(Creatophora cinerea).*

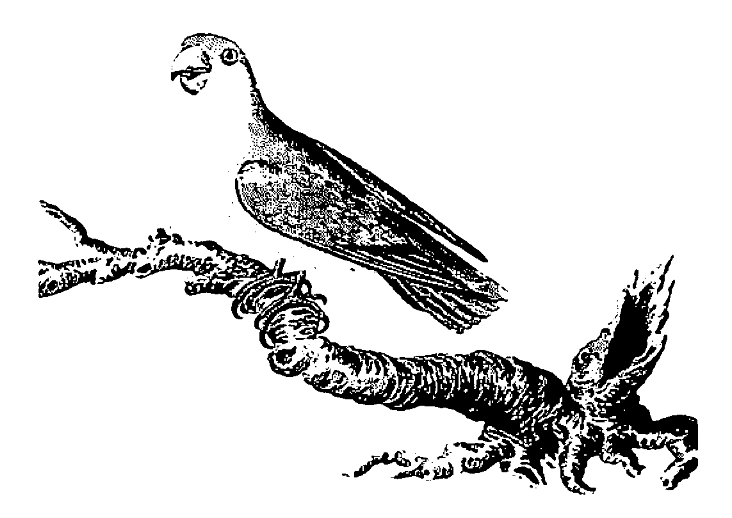


Fig. 66 Gordon Atlas (GA 289): Rosyfaced lovebird *(Agapornis roseicollis).*

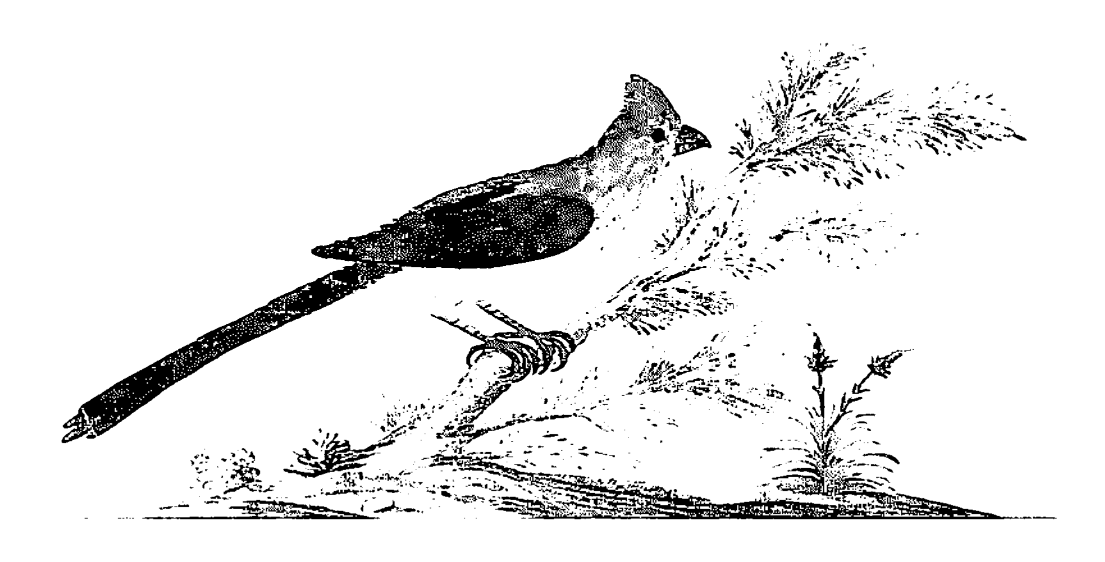


Fig. 65 Gordon Atlas (GA 285): Speckled mousebird *(Colius striatus).*



Fig. 67 Gordon Atlas (GA 286): Whitebacked mousebird *(Colius colius)*.

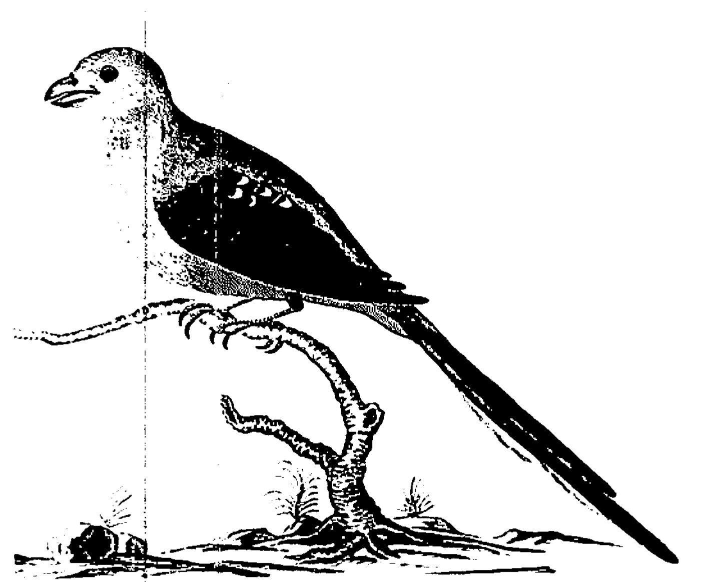


Fig. 68 Gordon Atlas (GA 290): Narina trogon *(Apaloderma narina)*.

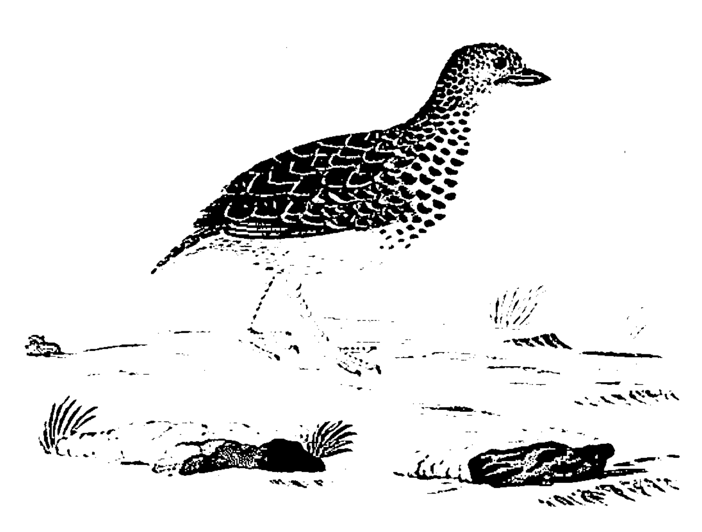


Fig. 69 Gordon Atlas (GA 302): Hottentot buttonquail *(Turnix hottentotta)*.

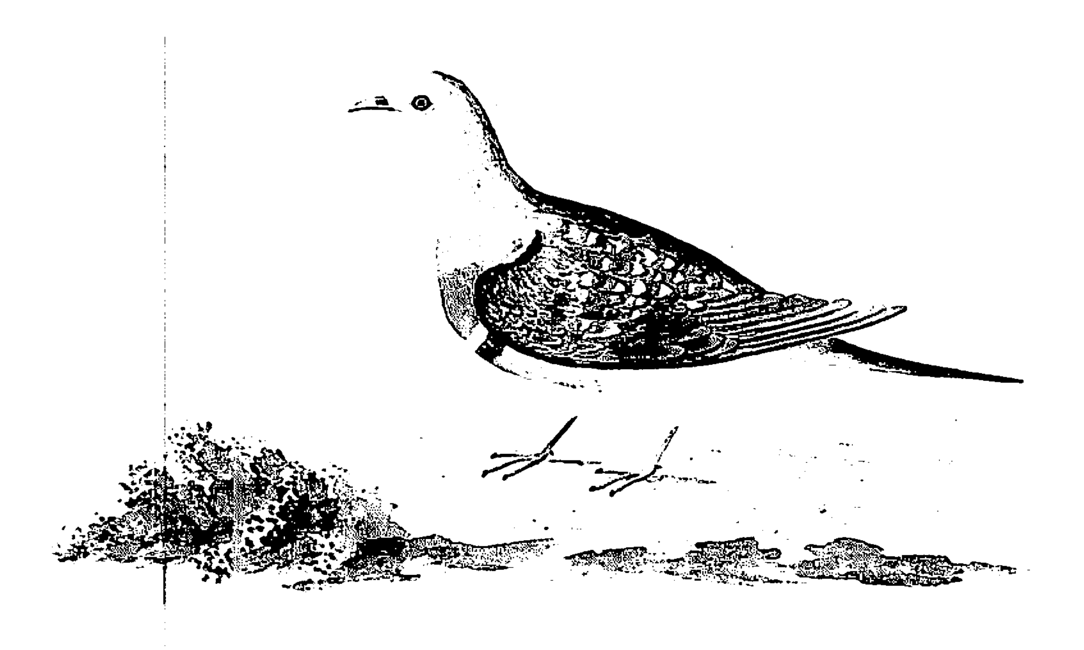


Fig. 70 Gordon Atlas (GA 303): Namaqua sandgrouse *(Pterocles namaqua)*.

levensgrote.'[177] The year is not mentioned, but probably 1778 like GA 298.

GA 282 *Vidua macroura*: '(F) La veuve à quatre brin dont la queue n'a point encore la longueur' and 'vogel uit de Camdebo, levensgrote.' On the right there is a depiction of a grasshopper to which Gordon remarked: 'Springhaan van omtrent sneeuberg waarvan er vele swermen dit jaar 1778 in oct: veel quaad aan het veldgewas gedaan hebben. Zij kwamen uit den oosten, quamen voorheen veel na het zeggen der hottentots dewelke hen eten.'[178]

GA 283 *Euplectes orix*: '(F) Le cardinal' and 'Roodbonte caapse vink dewelke s . . . graauw word, levensgrote.'[179]

GA 284 Nest of *Euplectes orix*: 'Roode vinke nest – legt groen ey.'[180]

GA 285 *Colius striatus*: '(F) Le colliou à dos blanc. Celui ci est un jeune, la queue de la femelle est aussi longue que celui du male' and 'Sogenaamde muisvogel, het wyfje. Sij sitten bijna perpendiculair tegen de takken, en slapen dus meest het mannetje tegen het wijfje aan.'[181]

GA 286 *Colius colius*: 'Muisvogel het mannetje'[182] and added in another handwriting: 'Colliou. Mokoe.'

GA 287 *Apaloderma narina*: '(F) Couroucoucou mâle.'

GA 288 *Tauraco corythaix*: '(F) Le touracou' and 'Sogenaamde loeri uit het houteniquas land.'[183]

GA 289 *Agapornis roseicollis*: '(F) Petite peruche male: and 'uit het namacqua land.'[184]

GA 290 *Apaloderma narina*, juv.: 'Andere couroucoukou.'

GA 291 *Clamator jacobinus*. No text.

GA 292 *Clamator jacobinus*. The bird is like GA 291 and the background differs only in perfection.

GA 293 Not identified: 'Indische tortelduif van het eiland sechellis'[185] written in unknown handwriting. The bird is unknown in South Africa.

GA 294 Not identified: 'Touacaca de la Nouvelle Guiné.' The bird is unknown in South Africa.

GA 295 *Oena capensis*: '(F) Tourterelle à longue queue, mâle' and 'zogenaamde namacquas duif, het mannetje, levensgrote. Gamka rivier den 7 nov 1778.'[186]

GA 296 *Oena capensis*: '(F) Tourterelle à longue queue, femelle' and 'Namacqua duif het wyfje, levensgrote.'[187]

GA 297 *Oena capensis*: Title in unknown handwriting: 'Namaqua duyfje, naturlyke grootte.'[188] The handwriting and the style of the drawing resemble that of GA 270.

GA 298 *Pterocles namaqua*: 'Namacqua patrijs, haan, levensgrote. Heeft maar drie klaauwen en kleine sporen. Jagersfontein den 17 nov. 1778.'[189] '(F) Gelinotte à longue queue, mâle.'

GA 299 *Pterocles namaqua*: '(F) Gelinotte à longue queue, femelle' and 'Namacqua patrijs, kip, met zyn ey, heeft ook 2 spoortjes.'[190]

GA 300 *Pterocles bicinctus*: '(F) Femelle de la gelinotte à collier.'

GA 301 *Pterocles bicinctus*: '(F) Gelinotte à collier mâle, on commence à le trouver vers le Namero' and 'Sogenaamde Namacquas patrijsen.'

GA 302 *Turnix hottentotta*: '(F) Caille à trois doits' and 'drie toonige kwartel van de Caap.'

GA 303 *Pterocles namaqua*, male. No text.

GA 304 *Francolinus capensis*: '(F) Francollin mâle' and 'of sogenaamde caapse phaisant.' On the right there is a scale of 9 inches.

GA 305 *Numida meleagris*: '(F) Pintade' and above the picture 'Wilde hoen of tarentaals hoen aan de Caap genaamt. Worden omtrent hondert uur van de Caap het eerst gevonden en zijn menigvuldig in de Camdebo onder sn [eeuwbergen?] en verder in het land.' Below the drawing Gordon continued: 'Dit was een haan. De hen heeft de hoornagtige kam iets smaller, anders even als de haan. Den 24 oct: 1778 R.J.Gordon' with 4 measurements.[191]

GA 306 *Struthio camelus*: '(F) Autruche mâle' and 'struisvogel.' On the left there is a scale of 7 feet 'Rijnlands maat.'

GA 307 *Struthio camelus*, juv.: 'Jonge struisvogel, veertien dagen oud.'[192] Above the bird there is a scale of 9 inches 'Rijn:'

GA 308 *Dromaius novaehollandiae*: 'Emue, New South Wales.' On the right there is a scale of 5 feet 3½ inches 'Engelse maat.' The bird is not known in South Africa. The drawing is described above (7.6.4).

GA 309 *Eupodotis afra*: '(F) Cannepetiere mâle' and 'de haan. Hartebeest fontein bij de straat, den 16 nov. 1778.'[193] There is a list of 7 measurements including its total height 15½ inches. On the right there is a scale of that length. The hottentot name is given as 'Ttatlawa.'

GA 310 *Scopus umbretta*: 'Kikvorsche vreter van de Caap.' On the right there is a scale of 12½ inches 'Rijnlands maat.'

GA 311 *Mycteria ibis*: '(F) La sigogne,' and 'langs gamka of leeuwen rivier den 8 nov' (1778?)[194] There is a list of 11 measurements. On the right there is a scale of 32 inches indicating the height of the bird.

GA 312 *Mycteria ibis*: 'Cigogne du Cap.' There is a scale of 24¾ inches 'Rijnlands maat' showing its height. This drawing

177. GA 281 'Cape woodpecker, in the rocks near Jagersfontein, 14 November, life-size.'

178. GA 282 'bird from the Camdebo, life size' . . . 'Grass-hopper from the Sneeuwberg where swarms in October 1778 did much damage to the plants. They came from the east, like many times before according to the Hottentots who eat them.'

179. GA 283 'Red variegated Cape finch which becomes grey in . . ., life-size.'

180. GA 284 'Nest of red finch, it lays a green egg.'

181. GA 285 'So-called *muisvogel* (mousebird) female. They keep perpendicularly against the branches, and the male sleeps against the female.'

182. GA 286 '*Muisvogel*, male.'

183. GA 288 'So-called *loeri* from the Houteniquas country.'

184. GA 289 'from the Namacqua country.'

185. GA 293 'Indian turtle dove from the Sechellis island.'

186. GA 295 'So-called Namaquas pigeon, male, life-size.'

187. GA 296 'So-called Namaqua pigeon, female, life-size.'

188. GA 297 'Namaqua pigeon, life-size.'

189. GA 298 'Namacqua partridge, male, life size. It has three nails and small spurs. Jagersfontein 17 Nov 1778.'

190. GA 299 'Namacqua partridge, female, with its egg, has 2 small spurs.'

191. GA 305 '*Wilde hoen* or *Tarentaals hoen*, from the Cape. It is first found some 100 hours from the Cape and they are numerous in the Camdebo under Sn. . . and further away. This was a male. The female has the hornlike crest smaller, otherwise it is like the male.'

192. GA 307 'young ostrich, 14 days old.'

193. GA 309 'the male. Hartebeest fontein near the Straat, 16 Nov 1778.'

194. GA 311 'along the Gamka or Leeuwen river, 8 November.'

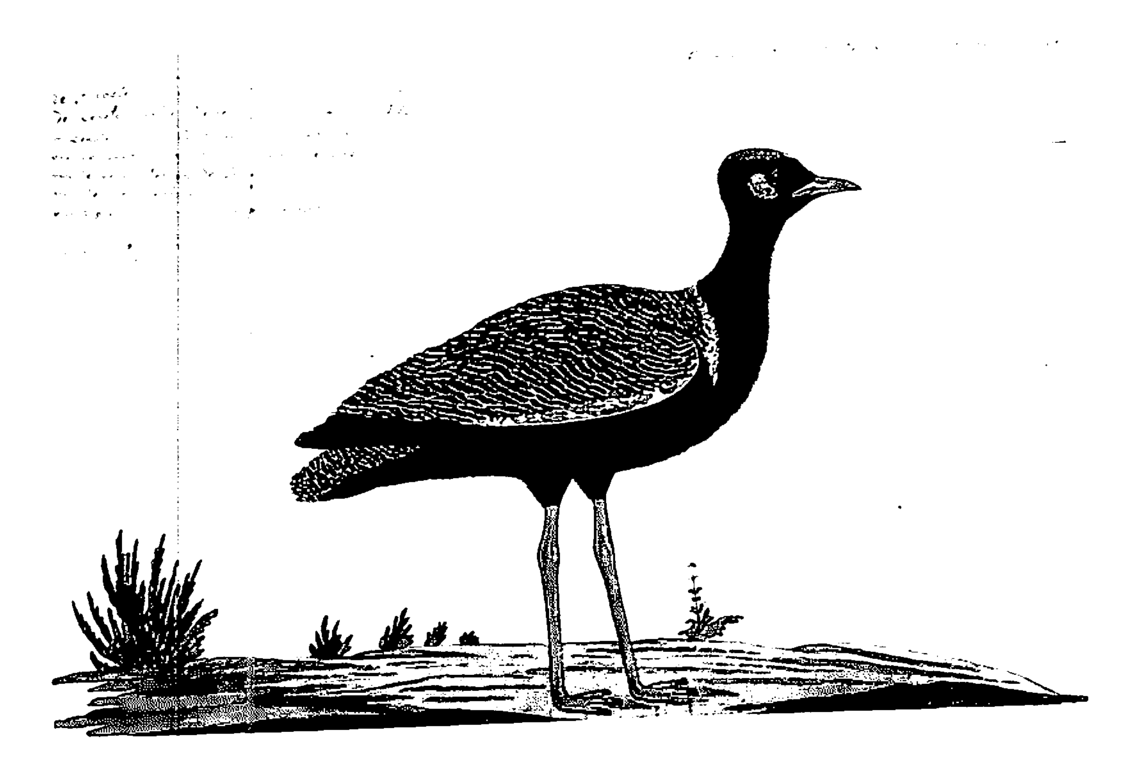


Fig. 71 Gordon Atlas (GA 309): Black korhaan *(Eupodotis afra)*.

differs from GA 311.

GA 313 *Geronticus calvus*: '(F) Le courli chauve' and 'sogenaamde wilde kalkoen.' On the right there is a scale of 12 inches 'Rijnlands.'

GA 314 *Grus rubicunda*. No text, there is a scale on the right of 4 feet 2 inches 'engelse maat.' The drawing is attributed to George Raper, see 7.6.4.

GA 315 *Ephippiorhynchus asiaticus*. No text, on the left there is a scale of 4 feet 'engelse maat'. The drawing is attributed to George Raper, see 7.6.4.

GA 316 *Balearica regulorum*. '(F) L'oiseau royal' and 'andere craane vogels, in 't caffers Hemoe.'[195] Illustrated in Rookmaaker (1981, fig.5).

GA 317 *Ardea cinerea*. '(F) Le heron huppé' and 'blaauwe reiger.' On the right there is a scale of 2 feet 3 inches 'Rijnlands maat.'

GA 318 *Anthropoides paradisea*. '(F) La demoiselle du Cap' and 'dese schone vogel houd zig omtrent de 100 uren van de Caap op. Meest in paren, omtrent wateragtige plaatsen: en komen t'naaste bij de kraanvogels in hunne oeconomie. De swarte slagpennen van sijn vleugels maken zijn schijnbare staart uit, zijnde die kort en onder deselven. Er is bijna geen onderscheid tussen mannetje en wijfje, als dat het laatste iets kleinder is.'[196] On the left there is a scale of 3 feet 7 inches 'rijnlands.'

GA 319 *Bugeranus carunculatus*: '(F) La grue' and 'Craanvogels.' On the right there is a scale of 4 feet 2 inches.

GA 320 *Anthropoides paradisea*. Title in unknown handwriting 'Blaue Graan Vogel.' The drawing differs from GA 318.

GA 321 *Threskiornis aethiopicus*: '(F) Courli à col nue' and 'sogenaamde schoorsteenveger, vogel dewelke zig agter op sneeuberg bij moerassige plaatsen ophoud. Sneeuberg den 6 oct 1778.'[197] Its height is given as 25½ inches 'rijnlands.'

GA 322 *Ephippiorhynchus asiaticus* (?): 'Vogel van Port Jackson', not South African. Described above, 7.6.4.

GA 323 *Egretta alba*: '(F) L'aigrette' and 'witte reiger uit het cafferland.'[198] On the right there is a scale of 1 foot 9 inches 'Rijnlands maat.'

GA 324 *Himantopus himantopus*. No text. On the right there is a scale of 12 inches 'Rijnlands maat.'

GA 325 *Himantopus himantopus*. No text. The drawing differs from GA 324.

GA 326 *Recurvirostra avosetta*: '(F) L'avocette' and 'Caaps elsje.' On the right there is a scale of 14 inches 'Rijnl.' A similar drawing is PA 93.

GA 327 *Calidris ferruginea*: '(F) L'alouette de mer.' A similar drawing is PA 84.

GA 328 *Charadrius tricollaris*: 'Vogel die bij de meeste waters gevonden word. Hier strandloper geheten word.'[199]

GA 329 *Rostratula benghalensis*. No text. Finished drawing.

GA 330 *Rostratula benghalensis*: 'Caapse walsnip.' Finished drawing.

GA 331 *Rostratula benghalensis*. No text. Finished draw-

195. GA 316 'Another crane, called Hemoe by the Caffers.'

196. GA 318 'This beautiful bird occurs at about 100 hours from the Cape. It is usually found in pairs, near wet places: and they are like the cranes in their economy. The black feathers of the wings constitute what looks like the tail, but its real tail is short underneath. There is no difference between male and female except that the latter is a bit smaller.'

197. GA 321 'so-called *schoorsteenveger* (chimneysweep), bird which occurs behind the Sneeuwberg in swampy places. Sneeuberg, 6 October 1778.'

198. GA 323 'white heron from the country of the Caffers.'

199. GA 329 'Bird found near most waters. Here called *strandloper*.'

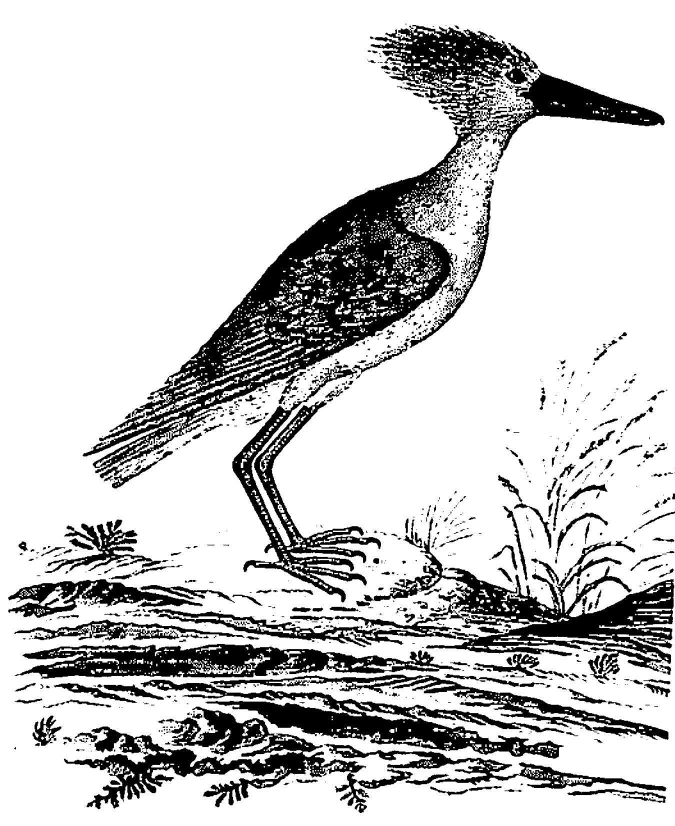


Fig. 72 Gordon Atlas (GA 310): Hamerkop *(Scopus umbretta)*.



Fig. 73 Gordon Atlas (GA 318): Blue crane *(Anthropoides paradisea)*.

ing. The four drawings with this species, GA 329-332 are different from each other.

GA 332 *Rostratula benghalensis*. No text. Finished drawing.

GA 333 *Gallinago nigripennis*: 'Caapse watersnip' in landscape.

GA 334 *Gallinago nigripennis*: '(F) Becassine' and 'Caapse poelsnep.' Although Gordon gave different names to the birds on GA 333 and 334, they represent the same species. GA 334 is much smaller and the background only indicated.

GA 335 *Tringa nebularia*. No text. On the right there is a scale of 8½ inches 'Rijnlands maat.'

GA 336 *Amaurornis flavirostris*; '(F) Petite poulle d'eau.'

GA 337 *Botaurus stellaris*: '(F) Le butor' and 'Roerdomp.' On the left there is a scale of 4 feet 4 inches 'Rijnlands maat.'

GA 338 *Phoenicopterus ruber*: 'Flamingo.'

GA 339 *Phoeniconaias minor*: '(F) Le flamand ou phénicoptère.' Similar to PA 92.

GA 340 *Phoenicopterus ruber*: '(F) Le flamand ou phénicoptère' and 'flamingo.' On the left there is a scale with 32 subdivisions. Similar to PA 91.

GA 341 *Alopochen aegyptiacus*: 'Caapse berggans.' Below the bird there is a scale of 19 inches.

GA 342 *Tadorna cana*: '(F) Coy à plastron' and 'Caapse sogenaamde berggans, houd langs rivieren en valleyen, ook wel aan zeestrand. Het mannetje verschilt zeer weinig van het wijfje. Drie voet tien duym vlugt, een voet drie duim hoog.'[200]

GA 343 *Phalacrocorax capensis*: 'Zeeduiker uit de Mosselbaay.'[201] On the left there is a scale of 22 inches 'Rijnlands maat.'

GA 344 *Anas erythrorhyncha*: '(F) La sarcelle.'

GA 345 *Morus capensis*. No text. On the left there is a scale of 18 inches 'Rijnlandse maat.'

GA 346 *Phalacrocorax capensis*. The title is written in unknown handwriting: 'Zee Vogel Viss-eeter, 22 duym hoogte. Proportie van een kleine gans, de beck en staart anderswart donker. Dese vogel is gevangen levendig, in de Mossel Baay, bij Comp.Post.'[202].

GA 347 *Tadorna cana*: '(F) Canard de montagne' and 'Zogenaamde Caapse bergeend, het mannetje, Gamka rivier.'[203] Below is a scale of 16 inches.

GA 348 *Pelecanus rufescens*: '(F) Le pelican' and 'Caapse kropgans. Voed sijn jongen niet met zijn bloed. Dog ik denk dat dit vertelsel voortgesproten is doordien hij sijn wijde bek opend en de jongen hem de ingeslokte vis, dewelke hij opwerp uit sijn grote krop, uit eten.'[204] On the right there is a scale of 2 feet 9 inches 'Rijnlandse maat.'

200. GA 342 'Cape so-called *berggans* which lives along rivers and valleys, sometimes on the beach. The male differs very little from the female. Its wings are 3 feet 10 inches, its height 1 foot 3 inches.'

201. GA 343 '*Zeeduiker* from the Mosselbay.'

202. GA 346 'Sea bird, fish eater, 22 inches high. Size of a small goose, Bill and tail black. This bird was caught alive, in Mossel Bay, near the company's post.'

203. GA 347 'So-called *bergeend*, the male, Gamka river.'

204. GA 348 'Cape *kropgans*. It does not feed its young with blood. But I think that this story originated from the fact that it opens its bill wide and that the young eat the fish which it keeps in the crop.'

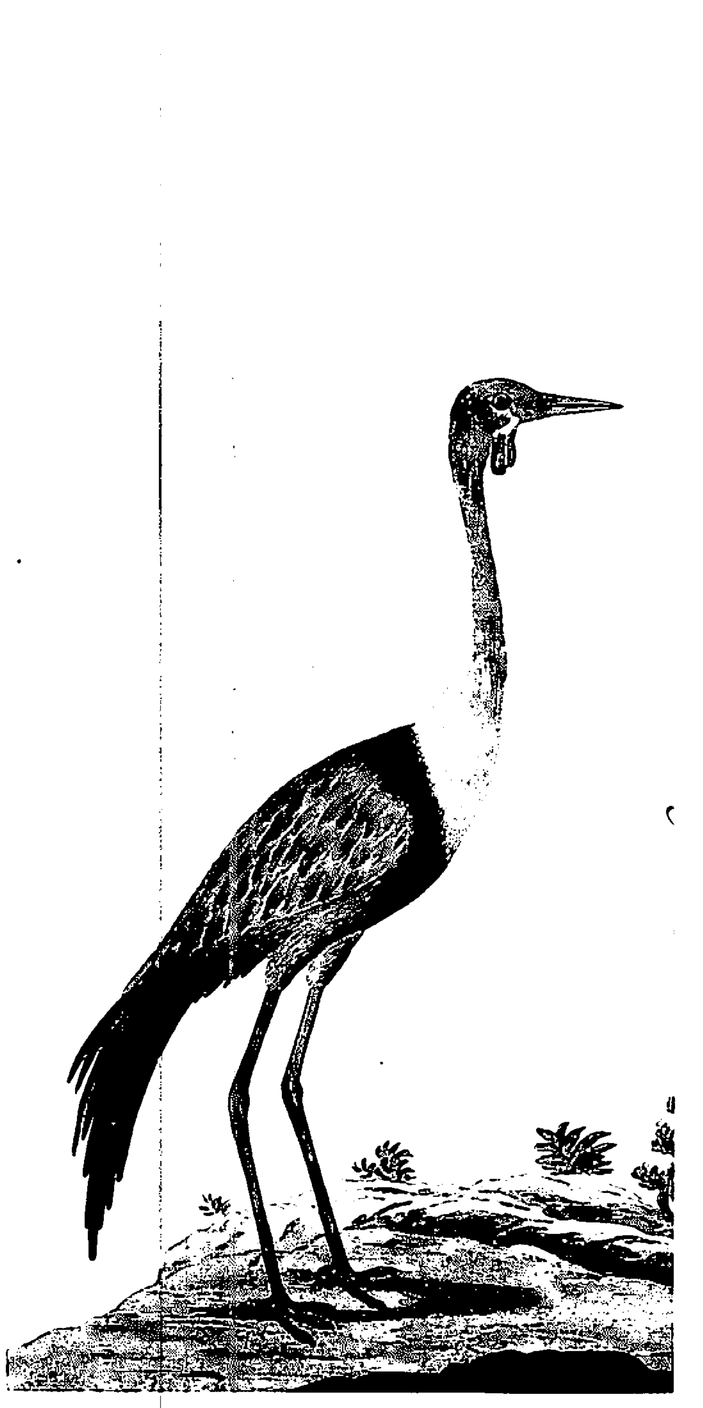


Fig. 74 Gordon Atlas (GA 319): Wattled crane *(Bugeranus carunculatus)*.

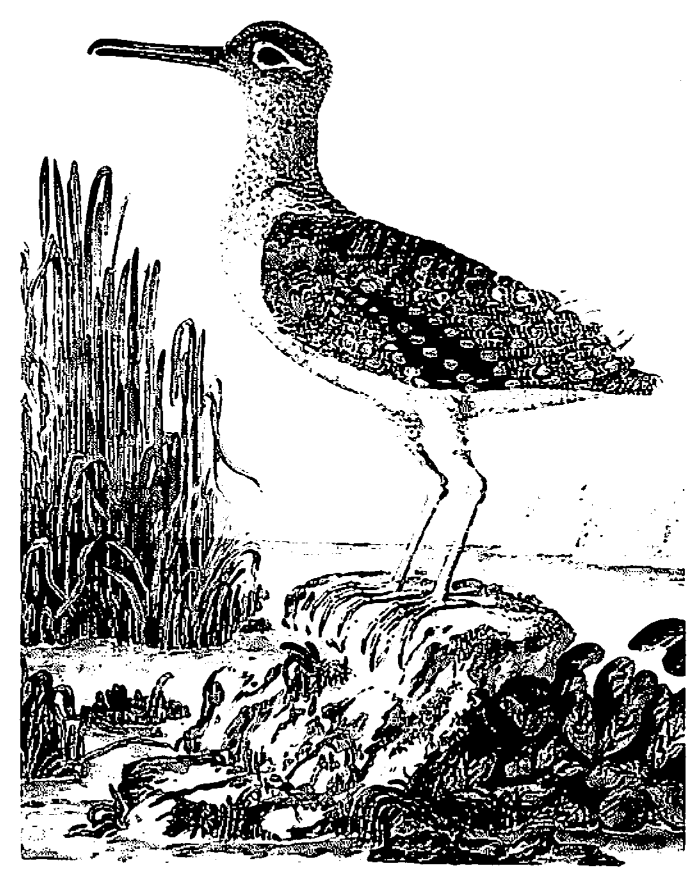


Fig. 75 Gordon Atlas (GA 329): Painted snipe *(Rostratula benghalensis)*.

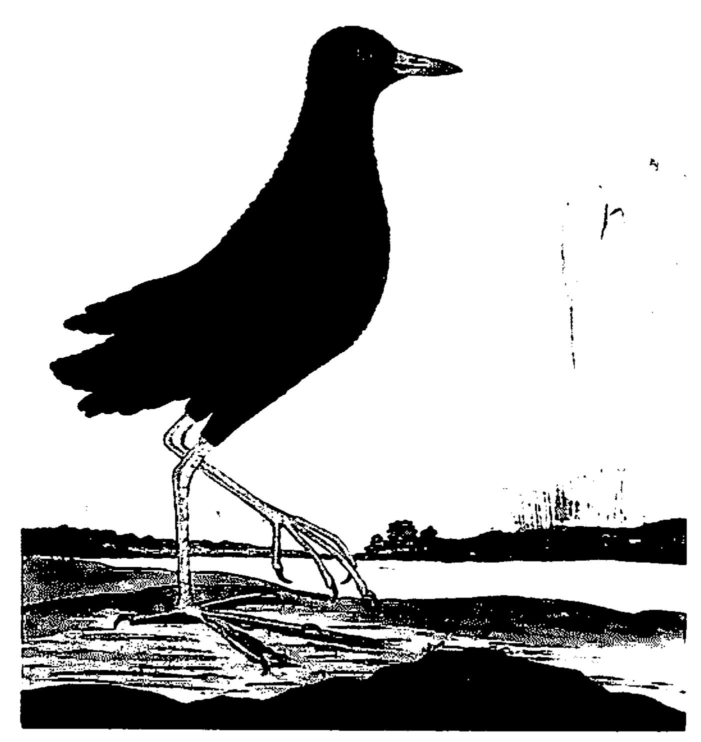


Fig. 76 Gordon Atlas (GA 336): Black crake *(Amaurornis flavirostris)*.

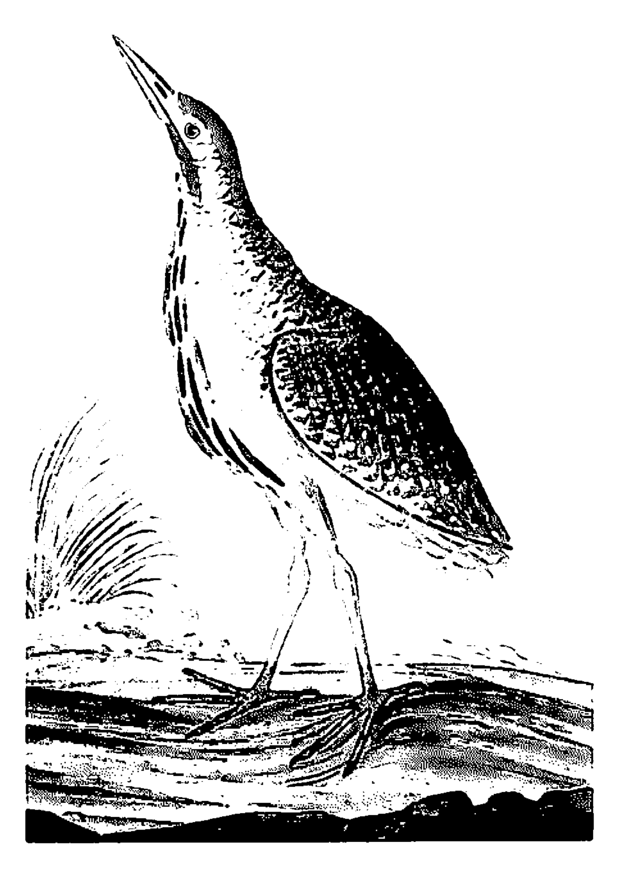


Fig. 77 Gordon Atlas (GA 337): Bittern *(Botaurus stellaris)*.

7.7 THE EXPEDITIONS

The evidence about Gordon's first journey into the Cape interior in 1773-1774 is fragmentary and the little that is known has been mentioned above in 7.2.2. After his return to the Cape in 1777, Gordon undertook another four major expeditions. Although some records of these trips have long been available through the drawings in the Gordon Atlas and journals kept by his companions (Paterson, van Plettenberg), it was not until after the rediscovery of his own diaries that a more detailed analysis was possible. Other sources with details about Gordon's travels include Forbes (1949, 1965) and Gunn & Codd (1981:171).[205]

7.7.1 *Second expedition, 1777/78*

Gordon left Cape Town on 6 October 1777 accompanied at least by his painter Johannes Schumacher and by William Paterson. The latter published some of his observations made during this journey in 1789 and kept his own journal, treated later in more detail in 11.6. There must have been other companions. Gordon wrote to Fagel on 10 April 1778 (Fagel Archief 2515) that the party consisted of 4 europeans and 8 hottentots. They travelled in an easterly direction via Somerset West, Swellendam and Oudshoorn to a place called Beervlei on the Groot River. Here Paterson turned back on 8 November 1777 (Forbes & Rourke 1980:76, map p.60). Gordon continued going northeast to the Sneeuwbergen. He decided to return at a place which he called the 'Keerombergen' identified as the present Boesmanshoed (30°41'S, 24°45'E). He then went southeast past Pearston, Bruintjeshoogte and Somerset East to the Great Fish River near Cookhouse. There he turned due north and came upon a large river on 23 December 1777 very close to Bethulie. He wrote in his letter to Fagel of 10 April 1778 that he 'noemde dese rivier Oranjes rivier en de noordelijke spruit Wilhelminaas rivier' ('called this river the Orange River and a northern tributary Wilhelmina River'). This shows that he made no secret about his discovery or naming. Gordon returned to the Great Fish River and continued to the coast at Algoa Bay. He then followed the coastline west reaching Cape Town on 8 March 1779.

[1] 6 Oct 1777: Cape Town
Thunnus thynnus, 'Tonynen', a group washed ashore, 6-7 feet long.

[2] 8-9 Oct 1777: Vergelegen 34°4'S, 18°53'E
Phoenicopterus sp., 'flamingoos'
Crocuta crocuta, 'hyenas'
Naja nivea, 'copere capel', 5 feet long
Lacertidae, 'hagedissen'
Damaliscus dorcas, 'bontebok', a tame living female born September 1776 about 25 hours east of the Cape. Gordon recorded 17 measurements including length from nose to beginning of tail 4 feet 5¼ inches, height in front 2 feet 10½ inches. This probably was the specimen depicted on GA 164.

[3] 12 Oct 1777: Steenbras River 34°12'S, 18°50'E
Papio ursinus, 'bavianen'

[4] 13 Oct 1777: Cape Hangklip 34°22'S, 18°49'E
Oreotragus oreotragus, 'klipspringer'
Syncerus caffer, 'wilde buffel', a herd of 30.

[5] 15 Oct 1777: near Riviersonderend c. 34°10'S, 19°50'E
Damaliscus dorcas, 'bontebokken'
Pelea capreolus, 'rhebokken'

[6] 16 Oct 1777: Avontuur 34°4'S, 20°5'E
Panthera leo, 'leeuwin', skin was shown of animal which was shot 3 weeks earlier by Hendrik A. van Vollenhoven
Hippopotamus amphibius, 'zeekoeyen'

[7] 18-21 Oct 1777: Swellendam 34°2'S, 20°26'E
Damaliscus dorcas, 'bontebokken'
Ardeotis kori, 'wilde paauwen'
Anthropoides paradisea, 'craanvogels'
Panthera leo, 'leeuwen'
Equus zebra, 'wilde paarden (zebras)'
Alcelaphus buselaphus, 'hartebeesten'

[8] 28 Oct 1777: Gysmanshoekpas 33°57'S, 21°2'E
Serpentes, a brown snake, 4 feet long

[9] 29 Oct 1777: near Groot River c. 33°55'S, 21°30'E
Raphicerus campestris, '2 steenbokken'
Eupodotis sp., 'korhaan'

[10] 2-5 Nov 1777: Olifants River c. 33°38'S, 21°50'E and further east
Struthio camelus, 'struisen'
Tragelaphus strepsiceros, 'coudous'
Alcelaphus buselaphus, 'hartebeesten'
Syncerus caffer, 'buffels'
Panthera leo, 'leeuwen'
Crocuta crocuta, 'wolven (hyenas)'
Melierax canorus, 'blauwe valk' with red legs, red bill (black tip).
Lacertidae, 'hagedissen'

[11] 6-8 Nov 1777: Beervlei 33°5'S, 23°30'E
Antidorcas marsupialis, 'springbok'

205. This chapter could not have been completed without the kind assistance of Patrick Cullinan, who prepared Gordon's Journals for publication. He allowed me to study his early transcripts and later helped in pinpointing the localities.

- *Pelea capreolus*, 'reebok'
- *Panthera leo*, 'leeuwin', female, 6 feet (188 cm) from nose to tail. Four had been shot in the past month.
- *Gyps coprotheres*, 'aasvogel, gier' 3 feet 2 inches from bill to end of tail.
- *Hyaena brunnea*, 'weerwolf', one shot and measured: length from snout to tail 3 feet 8¼ inches (116 cm), height in front 1 foot 10 inches (60 cm), the dentition is described.
- *Struthio camelus*, 'struisen'
- *Eupodotis* sp., 'korhaan'
- *Ardeotis kori*, 'wilde paauwen'
- *Equus quagga*, 'coaggaas', herd of 20 animals
- *Taurotragus oryx*, 'elanden (canna)'
- *Oryx gazella*, 'gemsbokken (pasan)'
- *Equus zebra*, 'sebraas'
- *Alcelaphus buselaphus*, 'hartebeesten', herd of 40 animals.

[12] 9-10 Nov 1777: near Aberdeen 32°28'S, 24°4'E

- *Connochaetes gnou*, 'wildebeest' with white tail
- *Equus quagga*, 'kwagga, choaggas', herd of 20 on 10 November
- *Equus zebra*, 'zebra'
- *Alcelaphus buselaphus*, 'hartebeesten', herd of 30 animals
- *Antidorcas marsupialis*, 'springbok', 2 shot and some 10,000 seen. These animals arrive in this place in September-November to avoid drought. One specimen was described and measured, e.g. length from snout to tail 4 feet (125 cm), height in front 2 feet 4 inches (73 cm).
- *Diceros bicornis*, 'rhinosters', tracks seen.

[13] 10-11 Nov 1777: Vrede 32°14'S, 24°13'E

- *Lepus* sp., 'hasen'
- *Eupodotis* sp., 'korhanen'
- *Corvus albicollis*, 'witnekkraaien'
- *Numida meleagris*, 'poelepentaden, terra natals hoenders'
- *Xerus inauris*, 'aardeekhoorn', in hottentots called gradow. Length from head to tail 9 inches (23,5 cm), tail 8 inches (21 cm).
- *Antidorcas marsupialis*, 'springbok'
- *Lycaon pictus*, 'wilde honden', herd of 12. Short description, '... zag ik dat het even zo een dier was als een vel aan de Caap heb' (saw that it was similar to the skin which I have at the Cape).

[14] 14-16 Nov 1777: Sneeuwberg c.31°45'S, 24°30'E

- *Acinonyx jubatus*, 'luipaard'. Gordon somehow got a skin without claws, tail and teeth. It was white, a little yellowish, spotted, 5 feet long (157 cm).
- *Antidorcas marsupialis*, 'springbokken'
- *Redunca arundinum*, 'rietbokken'
- *Struthio camelus*, 'struisvogel'
- *Equus quagga*, 'chaggaas'
- *Connochaetes gnou*, 'noes'
- *Lepus* sp., 'hasen'
- *Vanellus armatus*, unnamed bird like a pigeon, light grey on the wings, the rest black and white, living in wet places.

[15] 17-18 Nov 1777: near Hanover (?) 31°10'S, 24°45'E

- *Taurotragus oryx*, 'elanden', herds of 30-40 animals. One was shot, length 8 feet 11 inches (280 cm), height 5 feet 10 inches (183 cm) with a long description.
- *Connochaetes gnou*, 'nou'
- *Struthio camelus*, 'struis'
- *Damaliscus dorcas*, 'bontebok'
- *Antidorcas marsupialis*, 'springbok'
- *Phacochoerus aethiopicus*, 'bosverkens' (see description on 31 Dec 1777)
- *Alcelaphus buselaphus*, 'hartebeesten'
- *Taurotragus oryx*, 'eland'
- *Canis mesomelas*, 'jakhalsen'
- *Lepus* sp., 'hasen'
- *Francolinus* sp., 'patrysen'
- *Gyps coprotheres*, 'gieren'
- *Hippopotamus amphibius*, 'zeekoeien', tracks and dung.

[16] 19-23 Nov 1777: Seacow River c.30°45'S, 24°47'E

- *Hippopotamus amphibius*, 'hippopotamus', in total 9 (3 males, 6 females) were shot, and it was observed both externally and internally. See GA 197-200.
- *Panthera pardus*, 'tyger, panther'
- *Cryptomys hottentotus*, 'blesmol'
- Crustacea, 'watercrabben' ('water crabs')
- Diptera, 'langbenen', a kind of mosquito.
- *Taurotragus oryx*, 'elanden'
- *Connochaetes gnou*, 'noe'
- *Lepus* sp., 'haas' like the european but a third smaller
- *Raphicerus campestris*, 'steenbok'
- *Equus quagga*, 'coaggas', herd seen and from it a young one caught, drawn, and released after one day.
- *Aonyx capensis* (?), 'otter'
- *Antidorcas marsupialis*, 'springbokken'
- *Damaliscus dorcas*, 'bontebokken'.

[17] 24-28 Nov 1777: Localities between [19] and [14]

- *Hemachatus haemachatus*, 'spoegslang', 3 feet long, yellowish
- *Antidorcas marsupialis*, 'springbok'
- *Alcelaphus buselaphus*, 'hartebeest'
- *Connochaetes gnou*, 'gnu'
- *Sagittarius serpentarius*, 'secretarissen'
- *Canis mesomelas*, 'jakhalzen'

[18] 1-2 Dec 1777: Bruintjeshoogte 32°40'S, 25°20'E

- *Ourebia ourebi*, 'oribi', described and measured, shoulderheight 23 inches (60 cm).
- *Equus burchellii*, unknown animal looking like a cross between kwagga and zebra, drawn on GA 189

[19] 4 Dec 1777: Somerset East 32°44'S, 25°35'E

- *Cercopithecus aethiops*, 'apen'
- *Tauraco corythaix*, 'groene bosduiven' called 'loeris'
- *Syncerus caffer*, 'buffel'
- *Taurotragus oryx*, 'eland'

[20] 10 Dec 1777: Little Fish River 32°45'S, 25°37'E

- *Circus* sp., 'kuikendief'
- *Anthropoides paradisea*, 'blauwe kraan'

[21] 11 Dec 1777: Great Fish River 32°40'S, 25°48'E

- *Antidorcas marsupialis*, 'springbok'
- *Alcelaphus buselaphus*, 'hartebeest'
- *Mirafra* sp., bird like 'leeuwerik' flying in the sky

[22] 13-14 Dec 1777: Great Fish River c.32°30'S, 25°48'E

- *Antidorcas marsupialis*, 'springbokken'
- *Taurotragus oryx*, 'elanden'
- *Phacochoerus aethiopicus*, '3 bosverkens'
- *Hippopotamus amphibius*, 'hippopotamussen'

[23] 16-18 Dec 1777: Tarka River 32°15'S, 25°46'E

- *Struthio camelus*, 'struisen'
- *Alcelaphus buselaphus*, 'hartebeesten'
- *Antidorcas marsupialis*, 'springbokken'
- *Raphicerus campestris*, 'steenbokken'
- *Ardeotis kori*, 'wilde pauw'
- *Connochaetes gnou*, 'noes', large herd
- *Ourebia ourebi*, 'oerebi', shot and measured
- *Hirundo* sp., 'swaluw'

[24] 19 Dec 1777: Vlakpoort River 31°40'S, 25°55'E

- *Phacochoerus aethiopicus*, 'bosverkens'
- *Alcelaphus buselaphus*, 'hartebeesten'
- *Taurotragus oryx*, 'elanden'
- *Connochaetes gnou*, 'noes'
- *Antidorcas marsupialis*, 'springbok'

[25] 20-21 Dec 1777: near Steynsburg 31°20'S, 25°52'E

- *Alcelaphus buselaphus*, 'hartebeest', it was examined and Gordon had it drawn ('laten tekenen')
- *Antidorcas marsupialis*, 'springbok'
- *Connochaetes gnou*, 'noes', one shot on 21 Dec.
- *Damaliscus dorcas*, 'bontebok'

Francolinus sp., 'patrysen'
Coturnix coturnix, 'quartels'
Lepus sp., 'hasen'
Canis mesomelas, 'jakhals'
Ourebia ourebi, 'oerebis'
Anas sp., 'eenden'
Ploceidae, 'vinken', some longtailed, others red.

[26] 22-24 Dec 1777: Orange River near Bethulie 30°35'S, 25°55'E
Connochaetes gnou, 'noes'
Antidorcas marsupialis, 'springbok'
Damaliscus dorcas, 'bontebok'
Canis mesomelas, 'jakhals'
Ardeotis kori, 'wilde pauwen'
Falco sp., 'valken' – of which there are many species in this country.
Hirundo sp., 'swaluwen'
Mirafra sp., 'leeuwerik'
Anthropoides paradisea, 'blauwe kranen'
Redunca arundinum, 'rietbok', shot and measured.
Naja nivea, 'kopere capel', length 15 cm
Hippopotamus amphibius, 'hippopotamussen'
Numida meleagris, 'terra natals hoenders'

[27] 26-31 Dec 1777: north of Steynsburg c.31°S, 26°E
Antidorcas marsupialis, 'springbok'
Connochaetes gnou, 'noes'
Damaliscus dorcas, 'bontebok'
Taurotragus oryx, 'eland'
Phacochoerus aethiopicus, 'bosverkens', usually seen in groups of 4-5 or 8-9, they run fast, their tails stuck in the air.
Francolinus sp., 'patrysen'
Lepus sp., 'hasen'
Alcelaphus buselaphus, 'hartebeest'

[28] 1 Jan 1778: Tarka River c.32°10'S, 25°50'E
Phacochoerus aethiopicus, 'bosvarken', shot and eaten. Hottentots call it kouw nàba or grondrhenoster.

[29] 2-6 Jan 1778: Along Great Fish River c.32°30'S, 25°45'E
Antidorcas marsupialis, 'springbok'
Raphicerus campestris, 'steenbok'
Lacertidae, 'grote hagedis', swimming in the river.
Antidorcas marsupialis, 'springbok'
Taurotragus oryx, 'elanden'
Alcelaphus buselaphus, 'hartebeest'
Syncerus caffer, 'buffels'
Diceros bicornis, 'rhinoster'
Panthera leo, 'leeuwen'

[30] 8-10 Jan 1778: Bushmans River c.33°30'S, 26°30'E
Alcelaphus buselaphus, 'hartebeesten'
Equus quagga, 'coaggas'
Aquila verreauxi, a 'gier', blackish-brown in colour; it was drawn.
Alcelaphus buselaphus, 'hartebeest'
Taurotragus oryx, 'eland'
Antidorcas marsupialis, 'springbok'
Lepus sp., 'haas'

[31] 13-14 Jan 1778: Coerney River 33°27'S, 25°44'E
Geronticus calvus, 'wilde kalkoenen', described.
Syncerus caffer, 'buffel'
Papio ursinus, 'bavianen'
Alcelaphus buselaphus, 'hartebeest'
Anas sp., 'eenden'

[32] 15-16 Jan 1778: Sundays River 33°33'S, 25°40'E
Panthera leo, 'leeuw' tracks
Diceros bicornis, 'rhinoster' tracks
Equus quagga, 'coaggas'
Taurotragus oryx, '6 elanden'
Phoenicopterus sp., 'flamingoos'

[33] 17-20 Jan 1778: Around Port Elizabeth 33°45'S, 26°30'E
Panthera leo, 'leeuw' tracks
Syncerus caffer, 'buffel'
Crocuta crocuta, 'hyena'
Alcelaphus buselaphus, 'hartebeest'
Taurotragus oryx, 'eland'
Hippopotamus amphibius, 'hippopotamus' swimming in the sea
Equus quagga, 'coaggaas'
Syncerus caffer, 'buffels'
Tragelaphus scriptus, 'bosbokken'
Alcelaphus buselaphus, 'hartebeest'

[34] 23-28 Jan 1778: Gamtoos River 33°55'S, 25°E
Papio ursinus, 'bavianen'
Cercopithecus aethiops, 'apen'
Hippopotamus amphibius, 'hippopotamus' shot, length 11 feet (345 cm) weighed some 2100 pounds, shown on GA 198.
Fishes, 'harders', 'springers'

[35] 2 Feb 1778: Mouth of Gamtoos River 33°57'S, 25°4'E
Crocuta crocuta, 'hyaena' male shot

[36] 4-6 Feb 1778: Krom River 34°5'S, 24°45'E
Arctocephalus pusillus, 'robben'
Taurotragus oryx, 'eland'
Ourebia ourebi, 'oribi'
Syncerus caffer, 'buffel'

[37] 12-13 Feb 1778: Lange Kloof c.33°50'S, 23°50'E
Pelea capreolus, 'reebok'
Alcelaphus buselaphus, 'hartebeesten'
Ourebia ourebi, 'oerebis'
Francolinus sp., 'patrysen'
Syncerus caffer, 'buffels'
Papio ursinus, 'bavianen'

[38] 15-18 Feb 1778: Plettenbergs Bay 34°5'S, 23°22'E
Syncerus caffer, 'buffels', 2 herds of 200-300 animals
Papio ursinus, 'baviaan', very large
Serpentes, 'grote gele slang' (large yellow snake)
Mycteria ibis, 'oyevaars'
Bathyergus suillus, 'duinmollen'.

7.7.2 *Third expedition, 1778/1779*

Gordon left Cape Town on 28 August 1778 to escort Governor van Plettenberg whose company of 12 Europeans left 6 days later. The official account of the governor's journey has been discussed in 5.77. The party followed the usual route to the east, past Prince Albert to Beervlei on the Groot River. From there, the governor and Gordon travelled north with a smaller party, past the Sneeuwbergen, to a place on the Seacow River due west of the present Colesberg. Here van Plettenberg erected his beacon on 3 October 1778 to mark the northernmost boundary of the colony. As the Orange River only 30 miles further to the north would have made a more natural boundary, it was thought that Gordon had failed to inform van Plettenberg about this possibility (Forbes 1965:101, Gunn & Codd 1981:171). However, Gordon did not know how far that river was, he had already named it a year earlier and had reported the occasion to Fagel in Holland. Later he wrote again to Fagel on 24 April 1779 (Fagel Archief 2533) that he would have liked to continue further north, but the governor had no time; '[had] gaarn desselfs loop tot daar hij in de Oranjes rivier komt, n:o: en noord gevolgdt, dog de Hr.Gouverneur had geen tijdt.'[206]

206. Translated: 'I wanted to follow its course until it joined with the Orange River, north by north-east, but the Governor had no time.'

The whole group continued its journey past Graaff-Reinet and Somerset-East to the Great Fish River (10 October 1778). Van Plettenberg returned to Cape Town along the coast, while Gordon went again to the Sneeuwbergen. He had the intention to cross the Orange River, but he became sick: 'bij dit gebergte komende wierd ik ziekelijk, na hier dan enige dagen vertoeft te hebben, besloot ik dit jaar niet over de Oranjes rivier te gaan.'[207] Instead he decided to travel in a western direction, past Aberdeen, Beaufort West to Touwsrivier. He then continued through the Roggeveld to Calvinia, then to the coast near the Olifants River and back to Cape Town, where he arrived on 25 January 1779.

[39] 18 Sept 1778: Traka River 33°21'S, 23°7'E
Crocuta crocuta, 'wolf, hyena'
Panthera leo, 'leeuw' track
Taurotragus oryx, 'eland'
Oryx gazella, 'gemsbok (pasan)'
Equus quagga, 'kwagga'
Alcelaphus buselaphus, 'hartebeest (bubalis)'
Struthio camelus, 'struisvogels', female shot.

[40] 20 Sept 1778: near Boesmans River 33°12'S, 23°28'E
Equus quagga, 'Kwaggaas'
Tauraco corythaix, 'loeris'
Tadorna cana, 'geelbekken'

[41] 30 Sept 1778: Paardevlei 31°25'S, 24°40'E
Phacochoerus aethiopicus, 'bosverkens (sanglier d'Afrique)'
Alcelaphus buselaphus, 'bubalissen'
Antidorcas marsupialis, 'springbokken'
Connochaetes gnou, 'noes'
Damaliscus dorcas, 'bontebokken'
Canis mesomelas, 'jakhalzen'

[42] 1-5 Oct 1778: Seacow River 30°45'S, 24°48'E
Panthera leo, 'leeuw' tracks. Three were seen hunting 'gnoes'
Hippopotamus amphibius, 'hippopotamussen' 20 shot. One skin of a bull was preserved and taken.

[43] 19 Oct 1778: Great Fish River 32°48'S, 25°47'E
Gyps coprotheres, 'gieren (aasvogels)'

[44] 25-30 Oct 1778: Vrede 32°14'S, 24°13'E
Pedetes capensis, 'gerbo'. Gordon received a tame pregnant female.
Panthera leo, 'leeuw' seen by hottentots
Antidorcas marsupialis, 'springbokken'
Alcelaphus buselaphus, 'bubalissen'
Lacertidae, 'hagedissen'.

[45] 2 Nov 1778: Gamka River ? 32°30'S, 22°23'E
Diceros bicornis, 'rhinoster', a bull was shot by J.Herm.Viljoen at 118 paces distance (see GA 205)

[46] 4-8 Nov 1778: Gamka River 32°45'S, 22°E
Snakes: one black, the other yellow.
Tragelaphus strepsiceros, 'koedoe'
Accipiter sp., 'havik'
Mycteria ibis 'oyevaars' (see GA 311).

[47] 22-27 Nov 1778: Buffelskraal 33°25'S, 19°42'E
Equus zebra, 'zebraas'
Equus quagga, 'kwaggaas'
Crocuta crocuta, 'hyaena'

[48] 4, 7, 11 Dec 1778: De Koo 33°40'S, 19°50'E
Potamochoerus porcus, 'regt wild varken', one received from Mrs Coenradi. This animal lives in the bush and has incisors in the mouth. It differs from the 'bosverken' which can run faster than a horse, lives in the plains and digs in the ground.
Equus zebra, 'zebra' tracks.
Lycaon pictus, 'wilde honden' killed a cow.

[49] 14 Dec 1778: Verkeerde Valley 33°20'S, 19°54'E
Chelonia, 'waterschildpadden' (tortoises)

[50] 23 Dec 1778: Grote Roggeveld 32°20'S, 20°30'E
Francolinus sp., 'patrysen'.

[51] 1 Jan 1779: Bokkeveld c.32°20'S, 19°5'E
Antidorcas marsupialis, 'springbokken'
Equus quagga, 'kwaggaas'
Struthio camelus, 'struis'

[52] 11-12 Jan 1779: Mouth of Olifants River 31°42'S, 18°11'E
Thunnus thynnus, 'tonynen'
Loxodonta africana, 'oliphant' paths and old dung
Panthera leo, 'leeuw' tracks
Gyps coprotheres, 'gieren'.

7.7.3 *Fourth expedition, 1779/1780*

This was Gordon's first expedition in a due northerly direction. He was accompanied until the closing stages by the painter Schumacher, while for some stretches he was joined by William Paterson who made roughly the same journey simultaneously. Gordon went north to Ellenboogfontein and from there he made an excursion to the coast and to the mouth of the Orange River. Paterson (1789:113) reported that here the river was officially named, on 17 August 1779. After returning to Ellenboogfontein Gordon travelled north to the Orange River at Pella Drift. He then followed the river upstream on both banks of the river, to a point which probably was near the 'Groot or Klein Witberge' (A.B.Smith 1981). He returned to Cape Town along roughly the same route, arriving on 13 January 1780.

[53] 2 July 1779: Berg River 33°7'S, 18°50'E
Hirundo fuligula, 'vale swaluw', a resident species living in the mountains.

[54] 15 July 1779: Olifants River 31°30'S, 18°17'E
Not identified, 'veltmuisen' digging in the ground.
Procavia capensis, 'bergrot' called 'dasje'

[55] 16 July 1779: Meerhofs Kasteel 31°11'S, 18°14'E
Bees, 'byen'
Hystrix africaeaustralis, 'yservarken'

[56] 18-19 July 1779: Groen River 30°45'S, 18°2'E
Eupodotis sp., 'korhaan'
Taurotragus oryx, 'eland'
Struthio camelus, 'struisen'
Anas sp., 'eenden'
Tadorna cana, 'bergganzen'
Corvus albicollis, 'bonte krayen'
Chamaeleo sp., 'cameleons' much larger than those near the Cape.
Sylvicapra grimmia, 'duiker', a young one examined.

[57] 31 July 1779: West of Springbok c.29°40'S, 17°25'E
Lepus sp., 'haas'
Hystrix africaeaustralis, 'yservarken' caught by dogs

[58] 2 August 1779: Voorsigtigskloof ? c. 29°35'S, 17°15'E
Loxodonta africana, 'oliphant' dung and tracks
Equus zebra, 'zebra'
Taurotragus oryx, 'elands'
Oryx gazella, 'gemsbok (pasan)'
Alcelaphus buselaphus, 'hartebeest' tracks
Macroscelides proboscideus, 'oliphantsmuis'

[59] 6 August 1779: Grootmis 29°39'S, 17°6'E
Phoenicopterus sp., 'flamingos'
Phalacrocorax sp., 'duikers'
Anas sp., 'eenden'

207. Translated: 'Arriving at these mountains I became ill, and after staying for a few days, I decided not to cross the Orange River this year.'

[60] 7-12 August 1779: Between Grootmis and Port Nolloth c.25°30'S, 17°E
Raphicerus campestris, 'steenbok'
Lepus sp., 'hasen'
Mirafra sp., 'leeuwerken'
Hirundo sp., 'bergswaluwen'
Phoenicopterus sp., 'flamingos'
Oryx gazella, 'gemsbok' shot
Thunnus thynnus, 'tonynen'
Arctocephalus pusillus, 'robben'
Canis mesomelas, 'jakhalsen'

[61] 13-14 August 1779: Holgat River 28°55'S, 16°45'E
'schorpioen', scorpion
Taurotragus oryx, 'eland' tracks
Oryx gazella, 'gemsbok' tracks
Diceros bicornis, 'rhinoster' tracks
Panthera leo, 'leeuw' tracks
Not identified, 'schaapsoekerslang'

[62] 17-18 August 1779: Mouth of Orange River 28°35'S, 16°30'E
Struthio camelus, 'struis'
Equus zebra, 'zebras'
Antidorcas marsupialis, 'springbokken'
Pelecanus sp., 'pelicanen'
Anas sp., 'eenden'
Phoenicopterus sp., 'flamingos' in 2 species
Fish: 'harders' and 'moggels'
Bitis cornuta, 'gehoornde slang, hoornsmannetje'
Fish: 'harders', 'moggels'
Balaena glacialis, 'noordcaper' was stranded
Hippopotamus amphibius, 'hippopotamus'
Motacilla aguimp, 'kwikstaart' on the hippos
Papio ursinus, 'baviaan'
Loxodonta africana, 'oliphant' measured, height in front 10 feet 2 inches (320 cm), length 12 feet 4 inches (388 cm).
Coturnix coturnix, 'kwartels'
Streptopelia capicola, 'tortelduiven'
Francolinus capensis, 'faisanten'
Alcelaphus buselaphus, 'hartebeest (bubalis)', a male was shot and measured: height in front 4 feet 2 inches (131 cm), length 5 feet 4 inches (168 cm).

[63] 29 August 1779: Twee Gebroeders 28°45'S, 16°34'E
Equus zebra, 'zebra', the largest female was 6 feet 2 inches (194 cm) high in front.

[64] 2-3 September 1779: Goewaap (MacDougall Harbour) 29°17'S, 16°52'E
Canis mesomelas, 'jakhals'
Bitis cornuta, 'gehoornde slang'

[65] 5 September 1779: Grootmis 29°39'S, 17°6'E
Raphicerus campestris, 'steenbokken'
Anas sp., 'eenden'

[66] 10 September 1779: Ellenboogfontein 30°13'S, 17°52'E
Georychus capensis, 'blesmol'
Struthio camelus, 'struisvogel'
Giraffa camelopardalis, Gordon received the skin of a young bull from Pella Drift: 'ik had een camelopardalis jonge bul vel gekregen van de drift'. It was described and he put it in water to soak 'lei het in het water om te weken.'
Not identified, 'swarte slang' ('black snake')
Procavia capensis, 'dasjes'
Papio ursinus, 'bavianen'

[67] 23-24 September 1779: Naip 29°21'S, 18°21'E
Not identified, 'aardmuisen'
Struthio camelus, 'struis'
Snakes: yellow snake ('gele slang'), 'schaapsteker', 'hoornslang'
Equus zebra, 'zebra' tracks

[68] 26 September 1779: Sandfontein 28°58'S, 18°55'E
Struthio camelus, 'struis'
Raphicerus campestris, 'steenbok'

[69] 30 September 1779: Soubeesjes (Klein Pella) 29°S, 19°1'E
Giraffa camelopardalis, 'camelopardalis' tracks

[70] 1-2 October 1779: Kabas 29°4'S, 19°27'E
Giraffa camelopardalis, 'camelopardalis' tracks on both days
Hymenoptera, 'giftbij', kind of wasp
Diceros bicornis, 'rhinoster' tracks

[71] 3-4 October 1779: Nanseep 28°45'S, 19°22'E
Giraffa camelopardalis, 'cameelop.', tracks
Equus zebra, 'zebra' tracks
Oryx gazella, 'gemsbok' tracks
Diceros bicornis, 'rinosters', two were shot. Both were examined and measured. The largest was 8 feet 4 inches (262 cm) long and 4 feet 10 inches (152 cm) high in front.
Equus zebra, 'zebras', 12 seen
Loxodonta africana, 'oliphant' tracks
Panthera leo, 'leeuw' tracks
Hippopotamus amphibius, 'zeekoei' tracks

[72] 5 October 1779, north of Orange River 28°44'S, 19°25'E
Hippopotamus amphibius, 'zeekoei' tracks
Serinus sp., 'groene parrequiten' (green parrots')
Cercopithecus aethiops, 'aap', small species

[73] 6 October 1779: East of Nanseep 28°45'S, 19°27'E
Diceros bicornis, 'rhinoster' tracks

[74] 8-10 October 1779: Aiaas (Eyas) 28°36'S, 19°41'E
Otocyon megalotis, 'aardjakhals' which the Hottentots call à
Equus zebra, 'zebras', herd of 30 animals
Pterocles namaqua, 'namacqua patrysen'
Crocuta crocuta, 'hyaena'

[75] 12-14 October 1779: Bo Narries 28°36'S, 19°54'E
Diceros bicornis, 'rhinoster', 5 seen
Giraffa camelopardalis, 'giraffe' was shot by Pieter Pienaar, who was with Gordon at that time (cf. Willcox 1986:51). It was examined and measured in detail. A long description is provided in the journal for 13 October 1779. It was a male, 15 feet 2 inches (477 cm) high. A drawing was made: 'hadden de tekening volmaakt getroffen', and the bones were buried in the ground to be taken on the return.
Diceros bicornis, 'rhinoster', one shot
Tragelaphus strepsiceros, 'coedoes'
Equus zebra, 'zebras'

[76] 15 October 1779: Aughrabies Falls 28°36'S, 20°21'E
Oryx gazella, 'gemsbokken'
Tragelaphus strepsiceros, 'coedoes'
Struthio camelus, 'struis'
Loxodonta africana, 'oliphant' tracks
Diceros bicornis, 'rinoster' tracks, and one wounded
Orycteropus afer, 'aardvarken' holes
Giraffa camelopardalis, 'cameeleopardalis', a group of 6 seen alive
Hippopotamus amphibius, 'zeekoei'
Fish: 'moggel'
Papio ursinus, 'bavianen'
Crocuta crocuta, 'hyaena'

[77] 18-20 October 1779: Near Aughrabies 28°35'S, 20°27'E
Diceros bicornis, 'rinoster'
Loxodonta africana, 'oliphanten'. Pinar had shot 5 of a herd of 20.
Numida meleagris, 'polipentate, camdebos hoenders'
Francolinus capensis, 'phaisanten'
Picidae, 'specht'
Canis mesomelas, 'jakhalsen', 2 species
Skins of an unknown smaller animal were traded.
Panthera leo, 'leeuw' tracks
Diceros bicornis, 'rhinoster'
Hippopotamus amphibius, 'zeekoeien', 2 shot

[78] 23-24 October 1779: North of Orange River across from Kakamas c.28°45'S, 20°35'E

Syncerus caffer, 'buffels'
Loxodonta africana, 'oliphant' tracks
Diceros bicornis, 'rhinoster' tracks
Tragelaphus strepsiceros, 'koedoes'
Giraffa camelopardalis, 'kamelopardalis'
Hippopotamus amphibius, 'zeekoei'

[79] 25-26 October 1779: East of Kakamas 28°47'S, 20°50'E
Loxodonta africana, 'oliphant' seen close, height about 10-11 feet
Diceros bicornis, 'rhinoster' tracks
Giraffa camelopardalis, 'cameel' tracks
Numida meleagris, 'poelepentaden'
Hippopotamus amphibius, 'zeekoey'

[80] 28-29 October 1779: Kraal of Geisiquas 28°35'S, 21°12'E
Gordon listed the animals known in this region: 'cameelpaarden, noes, hartebeesten, zebras, kwaggas, oliphanten, rhinosters, buffels, elanden, etc.' The 'auerochs' mentioned by Brink (1778) is the gnou (*Connochaetes taurinus*), and the white horse ('witte paard') is a faded colour variant of the quagga (a 'vaale kwagga').

[81] 30-31 October 1779: East of Upington c.28°30'S, 21°25'E
Fish: 'bagger' or black fish, about 1 ½ foot long.
Hippopotamus amphibius, 'zeekoeyen'
Antidorcas marsupialis, 'springbok' tracks
Syncerus caffer, 'buffel' tracks
Equus quagga, 'coagga' tracks

[82] 1-4 November 1779: Orange River near Groblershoop c.28°47'S, 21°55'E
Hippopotamus amphibius, 'zeekoeien'
Pelea capreolus, 'rheebokken'
Taurotragus oryx, 'elanden', large herd of some 60 animals

[83] 10-12 November 1779: Orange River (around Upington) c.28°30'S, 21°15'E
Hippopotamus amphibius, 'zeekoei'
Pedetes capensis, 'gerbo' tracks
Giraffa camelopardalis, 'cameel' tracks
Diceros bicornis, 'rhinoster' tracks
Panthera leo, 'leeuw'
Sagittarius serpentarius, 'secretaris vogel'

[84] 14 November 1779: Kakamas 28°46'S, 20°36'E
Equus quagga, 'kwaggas', herd of 40 animals
Papio ursinus, 'bavianen'

[85] 18-21 November 1779: Near Aughrabies 28°36'S, 20°21'E
Many locusts, 'trekspringhanen'
Giraffa camelopardalis, 'giraf' seen on 19 and 21 November. The bones which had been buried on 14 October were largely destroyed, but Gordon took with him what could still be used, 'nam egter enige der beste stukken mee.'
Loxodonta africana, 'oliphant', group of 16 animals
Equus quagga, 'kwaggas'
Scorpions, 'schorpioenen'

[86] 25-26 November 1779: Sandfontein 28°58'S, 18°55'E
Flies, two kinds
Equus zebra, 'zebras'
Panthera leo, 'leeuw' tracks
Gyps coprotheres, 'gieren'

[87] 10-14 December 1779: near Warmbad 28°27'S, 18°44'E
Scorpions, 'schorpioenen', black ones
Giraffa camelopardalis, 'camelopardalis', a second one was shot, again a male, 15 feet 4 inches (482 cm) high. Its skin was taken, as well as the skeleton.
Serpentes, 'slang', a snake of 4 feet, yellow
Equus zebra, 'zebra'
Panthera leo, 'leeuw'
Agapornis roseicollis (?), 'parrekieten', parrakeets

[88] 28-29 December 1779: Kamiesberg 30°19'S, 18°4'E
Georychus capensis, 'blesmollen'
Equus zebra, 'zebras'
Bitis arietans, 'pofadder', 3 feet long.

[89] 1 January 1780: Groen River mouth 30°51'S, 17°35'E
Canis mesomelas, 'jakhals'

7.7.4 *Fifth expedition, 1785/1786*

This probably was Gordon's last expedition. The details of this journey have not yet been published, but the available manuscript journal has been consulted. This journal is short and ends on 12 March 1786. Gordon left Cape Town on 19 November 1785. He travelled to Tulbagh, then west to the Piketberg and the coast, first at the mouth of the Berg River travelling north to Lambert's Bay. Next he went east to Leipoldtville, across the Roggeveld to Prince Albert and the Groot Winterhoek Mountains. He went through the valley of the Gamtoos River, and continued east up to the vicinity of Coemey and the mouth of the Boknes River. From here he returned (on 16 February 1786) through Port Elisabeth and the Langkloof with an excursion to Plettenberg Bay. His journal stopped there, but Gordon must have returned to the Cape before the beginning of April. Cullinan (1982) gave some details about Gordon's discovery of the Dias Cross on 13 February 1786 near the mouth of the Boknes River.

[90] 20-22 November 1785: Between Cape Town and Tulbagh.
Equus zebra, 'zebras'
Lepus sp., 'hasen'
Francolinus sp., 'patrysen'
Raphicerus campestris, 'steenbok'

[91] 25 November 1785: Winterhoek Mountains 33°10'S, 19°5'E
Papio ursinus, 'bavianen'
Procavia capensis, 'dasjes'

[92] 4 December 1785: Piketberg c.32°45'S, 18°45'E
Equus zebra, 'zebra'
Pelea capreolus, 'rhebock'
Papio ursinus, 'bavianen'
Indicator indicator, 'honing-vogel'

[93] 12-13 December 1785: Mouth of Berg River 32°45'S, 18°10'E
Hippopotamus amphibius, absent
Panthera leo, 'leeuw'
Pelecanus onocrotalus, 'kropgansen'

[94] 15 December 1785: Duinfontein 32°37'S, 18°19'E
Taurotragus oryx, 'eland'
Lycaon pictus, 'wilde honden'

[95] 16-19 December 1785: Verloorevlei 32°20'S, 18°25'E
Struthio camelus, 'struis'
Arctocephalus pusillus, 'zeehonden'
Anas sp., 'eenden'
Papio ursinus, 'bavianen'
Not identified, 'springers' ('jumpers')

[96] 1 January 1786: Draaikraal River 31°48'S, 19°35'E
Panthera leo, 'leeuw' tracks
Oryx gazella, 'gemsbok'
Alcelaphus buselaphus, 'hartebeest'
Equus zebra, 'zebra' tracks
Papio ursinus, 'bavianen' tracks

[97] 10-14 January 1786: Roggeveld c.32°10'S, 21°E
Struthio camelus, 'struis'
Hystrix africaeaustralis, 'yservarken'

[98] 17-19 January 1786: Queekvaley 33°13'S, 22°2'E
Panthera leo, 'leeuw' tracks
Oryx gazella, 'gemsbok'

[99] 22 January 1786: 'Platberg' (locality uncertain)
Oreotragus oreotragus, 'klipspringers'

[100] 28 January 1786: South of Willowmore?
Struthio camelus, 'struis'
Equus quagga, 'kwaggas'

[101] 1 February 1786: Dienie Douw 33°27'S, 23°54'E
Equus quagga, 'kwagga'
Tragelaphus strepsiceros, 'koedoe'
Struthio camelus, 'struis'
Numida meleagris, 'camdebo hoenders'

[102] 7 February 1786: Near Grootwinterhoek Mountains c. 33°40'S, 24°45'E
Panthera leo, 'leeuw'

[103] 12-13 February 1786: Mouth of Boknes River 33°44'S, 26°35'E
Syncerus caffer, 'buffel', herd of some 50 animals
Equus quagga, 'kwagga'
Alcelaphus buselaphus, 'hartebeest'
Struthio camelus, 'struis'
Antidorcas marsupialis, 'springbok'

[104] 15-16 February 1786: S.E. of Coerney c. 33°35'S, 25°55'E
Alcelaphus buselaphus, 'hartebeest'
Equus quagga, 'kwagga'
Antidorcas marsupialis, 'springbok'
Pedetes capensis, 'gerbo'
Loxodonta africana, 'oliphant'.

7.8 SPECIMENS SENT TO HOLLAND

Gordon himself did not publish the results of his scientific observations. Maybe he planned such a book, he may even have prepared a manuscript, but certainly his notes never appeared in print. Yet he did not keep his material to himself. Gordon was well aware of the value of his zoological work to scientists in Europe. He sent at least some of his notes and animal specimens to interested persons in Holland. Apparently, most of this zoological material reached Holland between 1777 and 1782. The evidence concerning collections made during his first visit to the Cape of Good Hope in 1773 and 1774 (see 7.2) and during the years after 1782 is less specific. Some of Gordon's observations then were incorporated into contemporary publications by J.N.S.Allamand and by A.Vosmaer. Through their remarks, we get a glimpse of Gordon's shipments to Holland. It may be mentioned here that none of the original material, be it manuscripts, drawings or zoological specimens, is now known to exist with complete certainty.

There are four sources which can be used to reconstruct the contents of Gordon's shipments to Holland in 1777-1782.

1. Letters to Hendrik Fagel. Apparently, Gordon directed all his correspondence to Fagel, who then took care of the proper distribution to others. [7.8.1]
2. Publications by J.N.S.Allamand, professor of natural history and director of the natural history collection of the University of Leiden. Allamand edited a new edition of Buffon's *Histoire Naturelle*. He added 40 contributions about animals not well or not at all described by Buffon and many of these were based on specimens or manuscript notes received from Gordon. The work by Allamand is described in some detail below (7.10) and summarized here. [7.8.2]
3. Publications by A.Vosmaer, director of the menagerie and natural history museum of prince Willem V. Vosmaer published a series of booklets describing rare or unknown species present in the menagerie or the museum. His contributions are further described in 7.9 and summarized here. [7.8.3]
4. Notes on the drawings in the Gordon Atlas.

7.8.1 *Letters to Fagel*

Shortly after returning from the second expedition in the Cape interior, Gordon wrote to Hendrik Fagel on 10 April 1778:

> hebbe tekeningen van al die dieren, geholpen door een soldaat van mijne compagnie, die exact zijn, en zal de vellen aan de Heer allamand zenden.[208]

This is not very informative. Allamand, however, must have been advised about Gordon's intentions, because on 25 September 1778 he wrote to Joseph Banks in London stating to expect 'plusieurs autres [animaux] du Cap de Bonne-Espérance.'[209] Shortly after he obtained his first shipment from Gordon, because on 25 October 1778 he could inform Banks that he had just received from the Cape 'une vingtaine de peaux de grands animaux, tout fort rares, je suis occupé à les faire empailler, quand cela sera fait je travaillera à les décrire.'[210] Allamand here mentioned skins only, there is no word about a letter or zoological descriptions. In the fourth supplementary volume published in the new edition of Buffon's *Histoire Naturelle*, edited by Allamand, there is an 'Advertissement de l'éditeur hollandais' in which a letter by Allamand to the publisher is quoted. This letter mentioned that Allamand was expecting animals sent from the Cape of Good Hope, but they had not yet been received (Allamand 1778:iv).

After completing the third expedition (1778-79), Gordon again wrote a long letter to Fagel including an account of his travels. In this letter of 24 April 1779, he also mentioned his intention to send some material to Holland:

> hebbe de eere UwHWGb toe te senden, om aan zijne doorlugtigste hoogheid te geven, de perspectiven en plans van de Caap en baay fals. De tekeningen van den hippopotamus en rhinoster sijn door de Heer Gouverneur besorgt, beneffens de vellen, dus zijn de overige tekeningen voor de Professor Allamand, uitgenomen de caffers en hottentotten. Zou ik UwHWGb mogen versoeken de tekeningen der hottentotten aan de Professor der anatomie te Leiden, toe te senden. Hope dat alles wel over mag komen, en er door een lettertje van geinformeert te worden, dewijl nog een exemplaar voor mij overhoude, hetwelk in cas van ongeluk, oversenden zal.[211]

Apparently, Gordon had given drawings and skins of the hippopotamus and rhinoceros to governor Joachim van Plettenberg to be sent to prince Willem V. The other drawings were to be delivered to Allamand, except some depicting Hottentots destined (probably) for Eduard Sandifort (1742-1814), professor of anatomy at the University of Leiden. Gordon kept copies of the drawings at the Cape. A month later Gordon wrote again to Fagel, on 13 May 1779:

> hier nevens hebbe de eere ... nog enige zaken toe te zenden, namentlijk het gesigt der Oranjes rivier, daar ik gepasseerde jaar voor gestuit ben,

208. ARA, Fagel-archief, 2515, p.2. 'I have drawings of all those animals, assisted by a soldier of my company, which are exact, and I will send the skins to Mr Allamand.'

209. British Museum, Add.MS 8094, fol.132-133.

210. British Museum, Add.MS 8094, fol.134-135.

211. ARA, Fagel Archief, 2533, p.12. 'I have the honour to send you, to give to His Excellency, the perspectives and plans of the Cape and False Bay. The drawings of the hippopotamus and rhinoceros were sent by the Governor, like the skins, so the other drawings are meant for Professor Allamand, except the Caffers and Hottentots. Could I request you to send the drawings of the Hottentots to the Professor of Anatomy in Leiden? I hope that all will reach safely, and to be informed about it in a note, because I keep a copy here which I will send in case of accident.'

voor zijne hoogheid; en onse duinmol, hartebeest, kwagga en rietrebok voor mijne vriend Allamand, versoeke op het onderdanigst dat niemant er copie van mag nemen voor dat de heer Allamand aan wien de vellen gestuurd heb, zulks goed vind. De andere dieren, vogels, planten etc: zullen volgen; dog doordien een copie moet houden, neemt zulks veel tijdt. ... de Heer Gouverneur versoekt neffens mij instantelijk aan zijne doorlugtigste Hoogheid dat terwijl hij eene volmaakter hippopotamus ... heeft, de andere aan Allamand voor het Cabinet van Leiden, te geven. (Adding in P.S.:) Hebbe onse Caapse eland en blesmol nog kunnen klaar krijgen, dus voeg ik er die bij.[212]

Fagel replied on 2 November 1779 assuring the good receipt. After completing the fourth expedition, Gordon again wrote to Fagel on 10 March 1779 enclosing 'enige tekeningen voor zijne doorlugtigste Hoogheid, en de heer Professor Allamand.'[213] At that time too a giraffe killed by Gordon was sent to prince Willem V. This is the only specimen of which the history can be reconstructed in detail.

7.8.2 *Gordon's giraffes*

Gordon shot two giraffes during his fourth expedition to the lower course of the Orange River, the first on 12 October 1779 on the south bank of that river, the second on 10 December 1779 near Warmbad, S.Namibia. Gordon was only able to preserve a few bones of the first specimen, but both hide and complete skeleton of the second were transported to Cape Town. On 18 April 1780, Gordon asked permission to ship these specimens to Holland (Jeffreys 1928:45):

om met een der aanwezende retour-scheepen, aan de heer Allamand professor in de philosophie te Leijden, over te zenden, om ten dienste van 't Cabinet van Natuurlijke Zeldzaamheden van zijne doorl.hoogheid den heer Erfstadhouder, aan hoogst denselven te worden gepresenteerd, de Huid en het Scelet eener Cameleopardalus, gepakt in twee cassen, d'eene lang 6 en breed 3½ voeten, en d'andere lang 8 en breed 3 voeten.[214]

The permission was granted and the two boxes were shipped in *'t Zeepaard*. They contained the hide and skeleton of the second giraffe, the loose bones of the first one, and possibly several drawings and a manuscript description with measurements. It is rather strange that the whole shipment was addressed to Allamand, although the most important material was destined for the Cabinet of Willem V directed by Vosmaer. However, the material was distributed according to the instructions. Allamand (1781:49, 51, 57) later wrote to have received 'un dessin exacte', 'ses lettres', 'tous les os d'une des jambes de devant & d'une des jambes de derrière' and 'la figure du squelette'. He described this material in a note published in 1781 accompanied by two plates (see 7.10). Vosmaer received his share and published its description in 1787 even though he said it was presented by Van Plettenberg. The skin was mounted by a man called Onymos, a 'savant anatomiste' according to Allamand (1781:58). The skeleton too was mounted and stored in the attic of the building occupied by Willem V's collection of natural history. George Forster ([1791] 1958:296) saw it there in 1790: 'Herr Vosmaer führte uns freundschaftlich zu verschiedenenmalen in diesem reichen Tempel der Naturwissenschaft umher, und zeigte uns auch die neu hinzu gekommenen Stücke, die noch nicht an ihrem bestimmten Orte aufgestellt waren, wie z.B. ... auf dem Boden das Gerippe des Camelopardalis der Alten oder der Giraffe der Neuem.' After the French invasion in the Dutch provinces in 1795, André Thouin inspected the museum and mentioned the presence of the giraffe skeleton, 15 feet high (Boyer 1971:393, after a letter dated 22 February 1795). It was transported together with much of the prince's cabinet to Paris where the *Magazin encyclopédique* (Anon.1795) reported the arrival of 'deux peaux et un squelette de giraffe.' When the time came to return the stolen specimens to Holland, the French retained the giraffe skeleton (Gijzen 1938:24).

7.8.3 *Allamand and Vosmaer*

The publications by Allamand and Vosmaer with details about the various specimens and notes forwarded by Gordon are discussed in the following paragraphs. The available evidence can be here presented in brief form, arranged by species.

(a) Drawings and/or notes:

Georychus capensis: 1. Gordon to Fagel 13.5.1779: drawing of blesmol, to Allamand; 2. Allamand 1781:22 'le dessin'; 3. GA 227: 'uyt het vel en deze tekening sult uE zien.'

Bathyergus suillus: 1. Gordon to Fagel, 13.5.1779: drawing of duinmol, to Allamand; 2. Allamand 1781:24 'le dessin.'

Diceros bicornis: 1. Gordon to Fagel, 24.4.1779: drawings of rhinoceros, to Vosmaer; 2. Vosmaer 1800, 3 pieces with drawings and description; 3. Allamand 1781: 9 'dessin ... remarques.'

Equus quagga: 1. Gordon to Fagel, 13.5.1779: drawing of kwagga, to Allamand; 2. Allamand 1781:14 'le dessin & la description.'

Giraffa camelopardalis: 1. Allamand 1781:49 'un dessin ... ses lettres'; 2. Vosmaer 1800, 3 items with drawing and description.

Hippopotamus amphibius: 1. Gordon to Fagel, 24.4.1779: drawings of hippopotamus, to Vosmaer; 2. Vosmaer 1800, 8 pieces with drawings and description; 3. Allamand 1781: 2 drawings of male and female, notes, drawings of viscera.

Taurotragus oryx: 1. Gordon to Fagel, 13.5.1779: drawing of Caapse eland; 2. Allamand 1781:16: drawing, notes.

Alcelaphus buselaphus: 1. Gordon to Fagel, 13.5.1779: drawing of hartebeest; 2. Allamand 1781:19 'le dessin.'

Ourebia ourebi: Allamand 1781:33 based on notes by Gordon.

Redunca arundinum: 1. Gordon to Fagel, 13.5.1779: drawing of rietrebok; 2. Allamand 1781:34 'les dessins' of male and female.

Tragelaphus scriptus: Allamand 1781:37 'le dessin.'

(b) *Skins and/or bones:*

Georychus capensis: GA 227, 'uyt het vel en de tekening sult uE sien.'

Orycteropus afer: Allamand 1781:27 'la dépouille.'

Diceros bicornis: Gordon to Fagel, 24.4.1779: skin to Vosmaer.

Hippopotamus amphibius: Gordon to Fagel, 24.4.1779: skin to Vosmaer.

Giraffa camelopardalis: 1. GA 151, 'dit is het scelet hetwelk ik na den Haag gesonden heb'; 2. Allamand 1781:49: 'tous les os d'une des

212. ARA, Fagel Archief, 2533. 'I have the honour . . . to send you some items, i.e. the view of the Orange River which I saw last year, for His Highness; and our duinmol, hartebeest, kwagga and rietrebok for my friend Allamand. I ask kindly that nobody will take copies except with the permission of Mr Allamand to whom I sent the skins. The other animals, birds, plants etc. will follow, but because I need to keep a copy, this takes a lot of time. The Governor asks His Highness, because he has a perfect hippopotamus, to give the other one to Allamand for the Cabinet in Leiden. (P.S.) I was able to prepare our Cape eland and blesmol, and include them herewith.'

213. ARA, Fagel Archief, 2543. '. . . some drawings for His Highness, and Professor Allamand.'

214. 'request to send with one of the returning ships to Mr Allamand, professor of philosophy in Leiden, to be given to him in favour the Cabinet of Natural Curiosities of His Highness the Stadholder, the skin and skeleton of a Cameleopardalus, in 2 cases measuring 6 by 3½ feet, and 8 by 3 feet.'

jambes de devant & d'une des jambes de derrière'; 3. Vosmaer 1787b: hide and skeleton.

Taurotragus oryx: 1. GA 163, 'de rest zal uE aan het vel kunnen zien'; 2. Allamand 1781:16 'peau'.

Alcelaphus buselaphus: Allamand 1781:19 'la peau d'une femelle.'

Ourebia ourebi: 1. GA 170 'uE zult aan het vel zien'; 2. Allamand 1781:33 'la peau d'une femelle.'

Redunca arundinum: Allamand 1781:34 'la peau'.

Redunca fulvorufula: Allamand 1781:34 'la peau d'une autre individu'.

Tragelaphus scriptus: Allamand 1781:37 'la peau d'une femelle'.

Damaliscus dorcas: Allamand 1781:38 'peau'.

Oryx gazella: Allamand 1781:38 note 'peau ... du pasan'.

Hippotragus leucophaeus: Allamand 1781:38 note 'peau ... du tzeiran'.

Hippotragus equinus: GA 161: 'dit vel van het onbekende dier heb ik in 1779 aan het cabinet in den Haag gezonden.'

Connochaetes gnou: Allamand 1776:113: 'la dépouille de deux têtes' brought in 1774.

(c) *Living animals:*

Gordon in 1774 presented a springbok (*Antidorcas marsupialis*) to the prince's menagerie (see 7.2), and a quagga (*Equus quagga*) possibly was sent in 1780 to the same menagerie (see 7.9).

It is clear that two institutions benefitted from Gordon's shipments, the cabinet of prince Willem V directed by Vosmaer, and the natural history museum of the University of Leiden directed by Allamand.

Vosmaer received drawings or descriptions of *Diceros bicornis*, *Giraffa camelopardalis*, and *Hippopotamus amphibius*. He received skins or osteological material of *Diceros bicornis*, *Hippopotamus amphibius*, *Giraffa camelopardalis* and *Hippotragus equinus*.

Allamand received drawings or notes of *Georychus capensis*, *Bathyergus suillus*, *Diceros bicornis*, *Equus quagga*, *Giraffa camelopardalis*, *Hippopotamus amphibius*, *Taurotragus oryx*, *Alcelaphus buselaphus*, *Ourebia ourebi*, *Redunca arundinum* and *Tragelaphus scriptus*. He received skins or skeletons of *Georychus capensis*, *Orycteropus afer*, *Giraffa camelopardalis*, *Taurotragus oryx*, *Alcelaphus buselaphus*, *Ourebia ourebi*, *Redunca arundinum*, *Redunca fulvorufula*, *Tragelaphus scriptus*, *Damaliscus dorcas*, *Oryx gazella*, *Hippotragus leucophaeus*, and *Connochaetes gnou*.

7.9 COMMUNICATION WITH VOSMAER

7.9.1 *Life sketch of Vosmaer*

Aernout Vosmaer was born in Rotterdam on 23 September 1720 and died at The Hague on 15 January 1799. Little has become known about his personal life while there are only a few insights in his professional career. Vosmaer must have started a collection of natural curiosities at an early age. It is known that he bought specimens at the sale of Albertus Seba in April 1752 and that in 1756 his private collection consisted of some 15,000 items including shells, corals, quadrupeds, snakes, fishes, birds and insects (Scheurleer 1967:21). In some way, Vosmaer attracted the attention of the Dutch royal family. When Stadholder Willem IV died in 1751, his widow, princess Anna acted as governess until her death in 1759, for her then 4 year old son, Willem V (1748-1806). Princess Anna started to add naturalia to the royal collections, in which she was stimulated by the corresponding interest of Mrs Grovestins-von Schutz (1718-1797), court lady, who had a sizeable personal collection (Smit 1986:105, pl.17). Possibly Mrs Grovestins recommended the young Vosmaer to the princess to help her with the cabinet. In any case, Vosmaer was appointed Director of the Cabinet of natural history on 29 September 1756 and he was sworn in on 4 October 1756 (Scheurleer 1967:20). In 1771 Vosmaer also became director of the menagerie of Willem V. Opinions about his abilities have always been mixed. Thomas Pennant (1948:155), on his visit in 1765, called him a 'frenchified Dutchman, extremely ignorant.' Stresemann (1951:117) said that it was a 'verhängnisvollen Einfall' to appoint 'ein Unfähiger zu einflußreicher Stellung.' More recent commentators like Pieters (1980) and Scheurleer (1967) were kinder and maybe nearer to the truth. Vosmaer may be called an enthusiastic amateur, without professional education or practical training in natural history, who was given responsiblity beyond his, or anyone else's capacity. In this section I shall briefly discuss the menagerie, the museum of natural history, Vosmaer's publications and the sale of his collections, with emphasis on specimens obtained from the Cape of Good Hope.

7.9.2 *The menageries*

The princes of Orange, Stadholders of Holland, often kept living animals near their homes (Smit 1986:210). There were three such menageries in the course of the 18th century. The first of these was started by Willem III (1650-1702) at the *Oude Loo*, near Apeldoorn. This collection was quite small and consisted mainly of birds kept in an aviary and a pheasantry. The exhibition of mammals was incidental, but in 1748-1749 a pair of eland (*Taurotragus oryx*) from the Cape of Good Hope was shown (Evers 1912). In the second half of the 18th century only some birds were kept in this place.

More interesting to us at present is the menagerie started in 1756 by princess Anna at the *Kleine Loo* in Voorburg, near The Hague (Pieters 1978:54, 1980). Nothwithstanding the similarity in name, the *Oude Loo* and the *Kleine Loo* must not be confused, being located in quite different parts of the country. The general history of the *Kleine Loo* was given by de Vink (1903), Evers (1914) and many details were provided by Pieters (1980) and Smit (1986). Apparently the number of animals shown at any one time was rather limited. Unfortunately, nothing like a catalogue of animals exhibited here has ever been attempted. There were many passing references in contemporary literature to animals in the menagerie of prince Willem V but nothing like the entire collection is mentioned. Famous specimens include two Indian elephants (*Elephas maximus*), and the first living orang utan (*Pongo pygmaus*) in Europe imported in 1777 (Mazel 1909). The estate *Kleine Loo* was sold in 1786 and the animals were transferred to the *Oude Loo*.

Vosmaer stayed at the *Oude Loo* near Apeldoorn in September 1786 to direct the construction of a new menagerie. The animals were transported in November of that year (Evers 1914:208). In 1795, 8 species of mammals and 13 species of birds were present (Evers 1914:208). Among these were 3 zebras and 3 porcupines from the Cape of Good Hope. It is well known that after the French invasion in 1795, everything of importance in both the menagerie and the prince's cabinets was taken to Paris. This even included the living animals. On 18 July 1796, 11 mammal specimens and 36 birds were transferred to the Jardin des Plantes in Paris, where they arrived on 31 August

(Evers 1914:209, Boyer 1971:400). This did not include the two elephants which travelled to Paris between 25 September 1797 and 23 March 1798 (Evers 1914:210, Pieters 1978:61, 64).

Gordon only twice contributed to the menagerie. On 30 July 1774 he presented a springbok (*Antidorcas marsupialis*) which survived until August or September 1777 (see 7.2). Maybe he also sent a quagga (*Equus quagga*). Allamand (1781:15) mentioned that Gordon 'en a actuellement un autre qu'il réserve pour la ménagerie de Mgr.le Prince d'Orange', referring to a young specimen of the quagga. Possibly this animal was shipped in 1780 by Van Plettenberg arriving safely in Holland (Vosmaer 1783a:10). This, or again another quagga, was later sent to Vienna, as the director of the menagerie in that city, Richard van der Schot, wrote to Boos at the Cape on 15 January 1787: 'Unlängst kam aus Holland in die hiessige Menagerie ein gestreifter Esel an, welcher aber nicht die Zebra, sondern der Quagga ist. Ich las in Buffons Naturgeschichte daß Herr Gordon vor etliche Jahren, einen solchen von Cap nach Holland geschickt, und ich glauben daß dieses der nämliche sey' (after Kronfeld 1894:5, Giese 1962:75). This animal in Vienna died in 1798 but its remains were not preserved (Antonius 1931:95).

7.9.3 *The Museum of natural history*

The history of the natural history collection started by princess Anna and continued by Willem V was sketched by Scheurleer (1967). Vosmaer became director in 1756 and remained in that position until 1795. Vosmaer's private collection was bought by the princess in 1756 for f 8000, which included some specimens acquired at Seba's sale. Other items were bought at later sales, like those of Pierre Lyonnet in 1751, Pierre George de la Sarraz in 1757, Adriaan Vroeg in 1764 and Jan Noortberg in 1765. Other important sources of acquisitions were the animals which died in the menagerie and specimens donated by officials in Dutch settlements overseas (Scheurleer 1967:24).

It is obvious that there must have been several South African animals in the Cabinet. Vosmaer in his publications mentioned some more interesting ones like *Chrysochloris asiatica* and *Giraffa camelopardalis*, besides those shown first in the menagerie. Only a roan and a giraffe can be attributed to Gordon (see 7.8). There has been some speculation about a stuffed blue bock (*Hippotragus leucophaeus*) still preserved in Paris (sources cited by Mohr 1967:37-38), but there is no evidence that Gordon sent one to the prince's collection (he sent one to Allamand, see below).

In 1795, the French transported the most important part of the cabinet to Paris. Some interesting items, however, were hidden by Vosmaer and others (Scheurleer 1967:35, Boeseman 1970, Pieters 1980:541). These probably included specimens from Seba's collection. They later turned up in the collection of T.G.van Lidt de Jeude and were sold in 1858 or 1868 to a dealer on behalf of the British Museum (Thomas 1892, Smit 1986:160). However, the majority of specimens went to Paris between 19 April and 29 June 1795 in five different shipments (Boyer 1971:396-400). The *Magazin Encyclopédique* reported the arrival in the French capital (Anon.1795:419):

> Le cabinet du Stathouder est arrivé en grande partie de la Hollande; 150 caisses ont été portées au muséum d'histoire naturelle, et on attend encore un grand nombre. Toute la zoologie a été tirée des caisses, elle est exposée dans l'amphithéatre: on y remarque tous ces animaux si bien décrit par Boddaert, Allamand, Camper et Vosmaer; plusieurs de ceux apporté de l'Inde et figurés dans les grands ouvrages de Seba, de Martyn etc. On y voit un squelette de rhinocéros, deux peaux et un squelette de giraffe, un squelette de singe sans queue, inconnu, un singe satyre, et une foule de mammifères nouveaux qui seront bientôt connus par les soins du savant et infatigable professeur Geoffroy. L'ornithologie est également très-précieuse; les oiseaux sont enfermés dans des cages particulières ou sous des bocaux, et sont en grand nombre; mais la quantité d'insectes pris au Cap, à Batavia, à Surinam, est prodigieuse; ce sont ceux qui ont servi aux grands ouvrages de Merian, de Cramer et de Sepp. On voit aussi un nombre considérable de botaux renfermant des amphibies, tétrap.des ou serpens: le savant Lacepede y trouvera des materiaux pour un supplément à son ouvrage. La quantité d'oeufs, de peaux et d'objets accessoires est considérable. La mineralogie n'est pas encore debailée.

Thomas (1892:317) published a 'Liste des animaux envoyé de la Haye l'an III [1795] de la Republique Française' including some possibly South African species: 'une peau de rhinocéros bicorne (jeune), une tête de rhinocéros à double cornes, hippopotame adulte et jeune, deux peaux de coudou, deux peaux de buffle bleu du Cap [= gnou], deux peaux de bubale, une gerboise de la grande espèce, des peaux d'antilopes, un sanglier du Cap qui a vécu à la Haye.'

In 1815, S.J.Brugmans went to Paris to retrieve the natural history specimens abducted 20 years earlier. The collection had been dispersed and it proved impossible at the time to find the original specimens. Brugmans finally agreed to select a different series of 9988 specimens from all kingdoms of nature (Scheurleer 1967:40, Pieters 1980:541 with further references). This collection was integrated in the Rijksmuseum van Natuurlijke Historie, Leiden, established in 1820 (Gijzen 1938:25-27).

7.9.4 *Drawings owned by Vosmaer*

Vosmaer's first private collection was bought by princess Anna in 1756. Vosmaer continued to collect for himself and later he had at least some shells (van Benthem Jutting 1939:207). Vosmaer maintained his own library which was catalogued and auctioned in 1800. Among the lots, there are three containing drawings by Gordon depicting the rhinoceros, hippopotamus and giraffe, as follows (Vosmaer 1800:267, 268)

51. Teekening met kleuren en naukeurige beschryving van eenen Rhinoceros geschoten bij 't begin der Gamka in 't zuider deel van Africa door R.J.Gordon 1778. Item Natuurkundige beschrijving van eenige gedeeltens en ingewanden. 3 stuks. Origineele tekeningen tot 56 incluis.
52. Natuurkundige gekleurde teekeningen en beschrijvingen van eenen hippopotamus van het mann.gesl.geschoten in Plettenbergs rivier 7 gr.oost van de Caap, 30 gr.z.breedte 1777. Item van eene van het vrouw.gesl.geschoten 200 uur oost van de Kaap aan de rivier Gamka. Nog een van een bijna voldragen uitgesneeden foetus. Eindelijk van eenige deelen en ingewanden alles door denzelfden Gordon. 8 stuks.
56. Afteekening met kleuren van eenen Cameleopardalis in zijne gaande attitude met beschrijving en afteekeningen van 't scelet, tezaamen 3 stuks door R.J.Gordon.[215]

It is not known how these items came to be in Vosmaer's private library. It is equally unknown what happened to these drawings. This is unfortunate, because they could tell us more of the kind of material sent to Holland by Gordon, and these are the only ones ever mentioned in a sales catalogue. According to an annotated copy of this catalogue studied by Tuyn (1966:76), the drawings were bought by 'Leurs'. This might have been the surgeon Willem Leurs (1758-1801) who lived in The Hague

after 1787. When Leurs died on 21 December 1801, he was survived by his second wife, Maria Antonia Bergman (1758-22 November 1802) and two daughters (born in 1790 and 1792). The estate was divided between the daughters on 19 February 1814 but there is no further trace.[216]

7.9.5 *Vosmaer's publications*

Vosmaer is only known as author of one work, the *Regnum Animale*. Besides, he edited the 3rd and 4th volumes of the *Locupletissimi rerum naturalium thesauri* by Albertus Seba published in 1759 and 1765 respectively (Holthuis 1969) and assisted F.C.Meuschen in the preparation of sales catalogues (Smit 1986:294).

Vosmaer's main published work consisted of 34 separately published and separately paged booklets known collectively as the *Regnum Animale*. The first issue appeared in 1766, the last in 1805, all in practically simultaneous Dutch and French editions. A collective title appeared in 1804 as *Description d'un reçeuil exquis d'animaux rares* or *Natuurkundige Beschrijving eener uitmuntende verzameling van zeldsaame gedierten*. The easier *Regnum Animale* is taken from the engraved half-title also issued in 1804. Some aspects of the history and bibliography of this work were dealt with by Pieters (1980), while the installments of the Dutch edition were enumerated by Landwehr (1976:252-254).

The original titles of the booklets are often very long and cumbersome, at the same time difficult to abbreviate. In each issue a particular animal is described. Most of these were species living in the prince's menagerie, a few were specimens in the cabinet. Vosmaer selected totally unknown animals not included in Buffon's *Histoire Naturelle* nor described in detail elsewhere. Vosmaer did not accept Linnaean nomenclature and as such the work has remained little studied. However, some animals were later given binominal names with Vosmaer's descriptions as the sole basis, thus giving type status to the specimens described or illustrated.

Each installment was accompanied by one, sometimes two plates, engraved by Simon Fokke (1712-1784). Many of them were based on original watercolours by Aert Schouman (1710-1792) who made drawings in the cabinet and the menagerie. Several of these originals are still preserved in the Artis Library in Amsterdam, originating from the sale of the library of T.G.van Lidt de Jeude in 1866. Those depicting mammals were discussed and illustrated by Tuyn & van der Feen (1969), those of birds by Pieters (1980).

Among the 34 booklets, there were 12 descriptions of South African animals. These are here briefly mentioned with reference to the original drawings if known and the information attributed to Gordon. The dates of the references follow the Dutch edition, the full titles of which can be found in the bibliography at the end of this book. The names are those found in the French counterparts.

1. Vosmaer 1766a: Description of 'Porc à large groin'

The animal was received alive in 1765 from the Cape, sent by Ryk Tulbagh on board the *Prince Héréditaire* (p.7). It was a specimen of *Phacochoerus aethiopicus* still alive in 1766. There are an original watercolour and Indian ink-drawing by Schouman and a similar Indian ink-drawing signed by Karel van Cuyk, all in the Artis Library (Tuyn & van der Feen 1969:70, fig.1).

2. Vosmaer 1767: Description of 'Marmote-Bâtarde'

Vosmaer knew a female specimen preserved in spirits sent from the Cape by Tulbagh, and a male specimen sent from Mr Bergmeijer, owner of the menagerie Blauw Jan in Amsterdam (p.5). This animal was *Procavia capensis*. The original drawings are not known (see Tuyn & van der Feen 1969:71).

3. Vosmaer 1769: Description of the 'Sagittaire'

One specimen of *Sagittarius serpentarius* was sent from the Cape around 1767: 'il y a environ deux ans qu'il fut envoyé ici' by Otto Luder Hemmig. Vosmaer was the first to describe the bird in print. The plate was engraved after an Indian ink drawing by Schouman in the Artis Library (Pieters 1980:550, fig.8).

4. Vosmaer 1771: Description of 'Chat-Bizaam'

In 1759 a specimen of *Genetta tigrina* was sent alive by Tulbagh. The original Indian ink painting by Schouman is in the Artis Library (Tuyn & van der Feen 1969:73, fig.5).

5. Vosmaer 1774: Description of two lizards

One of the species, the 'lézard vert' (not identified) was sent a few years earlier (c.1770?) from the Cape of Good Hope by Tulbagh. Probably it was not alive when it arrived, because in the title of the booklet only the cabinet of the prince is mentioned. The original of the plate is not known.

6. Vosmaer 1783a: Description of the 'Coudou'

In a letter dated 13 May 1776, Vosmaer was informed by Baron van Plettenberg that a specimen of *Tragelaphus strepsiceros* had been shipped. It arrived in the menagerie on 22 September 1776 after having spent some days in the Amsterdam docks awaiting transport. It survived about 3 months, after which the skin was preserved in the cabinet. Vosmaer recorded some information about it based on the useful observations of Mr Gordon. The plate was drawn after this captive specimen. The original Indian ink drawing by Schouman is in the Artis Library (Tuyn & van der Feen 1969:75, fig.12). Allamand (1778:143) based his description of the 'condoma' on the same specimen, observed by Klöckner while it was in Amsterdam.

In this issue there was a note about a quagga (*Equus quagga*) which arrived in Holland in 1780, while in 1748/1749 several of those animals were found in the stables of Willem IV.

215. '51. Coloured drawing and accurate description of a rhinoceros shot at the start of the Gamka River in the southern part of Africa by R.J.Gordon 1778. Also Physical description of some parts and viscera, 3 pieces. Original drawings up to 56.
52. Coloured drawings and descriptions of a male hippopotamus shot in the Plettenberg River 7 degrees east of the Cape and 30 degrees southern latitude 1777. Also of one female specimen shot 200 hours east of the Cape in the Gamka River. And another of an almost mature foetus. Finally of some parts and viscera, all by the same Gordon. 8 pieces.
56. Coloured drawing of a Camelopardalis in its walking attitude with description and drawings of the skeleton, together 3 pieces by R.J.Gordon.'

216. This information is from the Gemeente Archief, 's Gravenhage, 9 October 1978. There is also a sales catalogue with details of the library of W.Leurs, including a collection of stuffed birds and shells, dated 6 September 1802 (Leurs 1802), but the drawings by Gordon could not be located.

7. Vosmaer 1783b: Description of the 'Canna'
A pair of this species (*Taurotragus oryx*) had been exhibited in 1748-49 at the *Oude Loo*. In 1780, Baron van Plettenberg wrote to Vosmaer about a shipment of '2 gestreepte woudezels (zebra), een bastaard dito Quagga genaamd ... gnou ... jonge Kaapsche eland' (2 zebras, a quagga, a gnou, a young Cape eland). The gnou died on the way, the other animals arrived safely. The eland died soon after arrival due to injuries received while off-loading. This specimen was drawn in the menagerie by the court painter, Tethart Philip Christiaan Haag (1737-1812). The original Indian ink drawing signed by him is in the Artis Library (Tuyn & van der Feen 1969:75, fig.13).

8. Vosmaer 1784a: Description of the 'Gnou'
Vosmaer received two gnous (*Connochaetes gnou*) for the menagerie, the first on 14 June 1774, the second in 1776, both sent from the Cape by van Plettenberg. The first animal was drawn by Schouman, whose Indian ink drawing is in the Artis Library (Tuyn & van der Feen 1969:75, fig.14). Vosmaer thought that his own drawing was superior to that published by Allamand (1776, pl.14) or its original: 'De Heer van Plettenberg heeft mij tegelijk eene afbeelding, copie of origineel, van die van den heer Allamand gezonden ...' (p.9 note c; 'Mr van Plettenberg sent me a depiction, copy or original, of the one used by Allamand.') This must be a reference to a drawing (or its copy) attributed to Gordon.

9. Vosmaer 1784b: Description of the 'Gazelle de Parade'
A specimen of this animal (*Antidorcas marsupialis*) was brought alive from the Cape of Good Hope by Gordon, who presented it on 30 July 1774. It died in August or September 1777. While the original drawing used for the plate is not known, a watercolour by Vincentius possibly made after this specimen is in the Artis Library (Tuyn & van der Feen 1969:76, fig.15). On it is written, 'te slegt om te gebruiken' ('too bad to use'). Wilhelmus Vincentius (1736-?) was a pupil of Schouman. The engraving published by Allamand (1778, pl.LX) was made from the same animal.

10. Vosmaer 1787a: Description of the 'Taupe verdâtre'
The specimen of *Chrysochloris asiatica* was preserved in the cabinet. There are two Indian ink drawings signed by Van Noorden in the Artis Library, one a sketch, the other more finished (Tuyn & van der Feen 1969:76, fig.16). In some checklists, like Allen (1939:7) and Meester et al. (1986:18), the binominal name *Sorex auratus* is attributed to this paper by Vosmaer. I was unable to find it either in the Dutch or the French edition consulted. If it is present, it is not available because Vosmaer did not use binominal nomenclature consistently.

11. Vosmaer 1787b: Description of the 'Giraffe'
In 1780, the hide and skeleton of a giraffe (*Giraffa camelopardalis*) were sent to the prince's cabinet through the offices of Baron van Plettenberg. The animal had been killed by Gordon, and its history was recounted in 7.8. The skeleton was sent in loose bones, but these had been mounted by Onymos. Plate XIXa of the animal itself was at least partly based on drawings sent to Holland by Gordon, which is clear from similarities in composition with extant drawings in the Gordon Atlas. The drawing from which the engraving was made is in the Artis Library, signed by G.Haasbroek (Tuyn & van der Feen 1969:76, fig.17).

Due to the rarity of the specimen, Vosmaer decided to append an osteological description. This was contributed by Petrus Camper (1722-1789) as 'Waarneemingen over het geraamte van de Camelopardalis 't welk in het kabinet van Z.D.H.den Heere Prinse van Orange gevonden wordt' (pp.38-44, dated 4 August 1786). Only the more interesting osteological structures were discussed (Visser 1985:50-52). The plate XIXb of the skeleton was engraved by J.F.Grout after a drawing made by Johan Heinrich Merck (1741-1791) in 1784. Vosmaer (p.21 note) was annoyed because an enlarged copy of this plate had been sent to London where it was published. I have not been able to trace this London copy. However, it might have been similar to the copy of the engraving preserved in the Gordon Atlas (GA 151), which differs in various details from the plate published by Vosmaer (see Rookmaaker 1983a:86, fig.9).

12. Vosmaer 1804: Description of the 'Courli'
A specimen of *Geronticus calvus* was sent to the menagerie and it was preserved in the cabinet of the prince. As this issue was published posthumously, it must have been edited from a manuscript prepared before 1797. Maybe the unknown editor added the binominal name: *Tantalus nudicollis*. The Indian ink drawing by Schouman is in the Artis Library (Pieters 1980:552, fig.10). An almost identical watercolour, not reversed, dated 1756 is in the Museum Boymans-van Beuningen (inv. A.Schouman - 6).

7.10 COMMUNICATION WITH ALLAMAND

Johannes Nicolaas Sebastiaan Allamand (1713-1787), born in Lausanne on 18 September 1713, enrolled as a law student at the University of Leiden in 1740.[217] He may have been married at the time, because he was the father of the botanist Frederik Allamand born in 1735 (Markgraf & Steiger 1969). After his studies, he went to teach philosophy at the University of Franeker from 3 March 1747 until 1749, when his position there was taken by Petrus Camper who had studied medicine in Leiden at the same time as Allamand. In 1749, Allamand became professor at the University of Leiden teaching 'varia ad oeconomiam et structuram animalium spectatia.' Most of his lectures were concerned with some aspect of natural history. He married (for a second time?) with Margaretha Crommelin (no children) and died on 2 March 1787.

In 1751, Allamand was put in charge of the Cabinet of the University in the gallery of the botanical gardens (Smit 1986:154). This collection had existed since the 16th century as an aid to the medical teaching. Allamand was especially interested in the natural history specimens and he added much to it through his connections with Dutch travellers. He also bequeathed his private collection, except his library, to the university. The library was auctioned in June 1791.[218] When the Cabinet of the University was visited by Schaeffer (1794:121)

217. Biographical notes on Allamand were taken from Boeles (1879:504-507), v.d.Klaauw (1926:2-5,49-50), Smit (1986:5).

218. The auction catalogue of Allamand's library (copy in the Vereeniging ter bevordering der belangen des boekhandels, Amsterdam) does not contain items which can be related to Gordon.

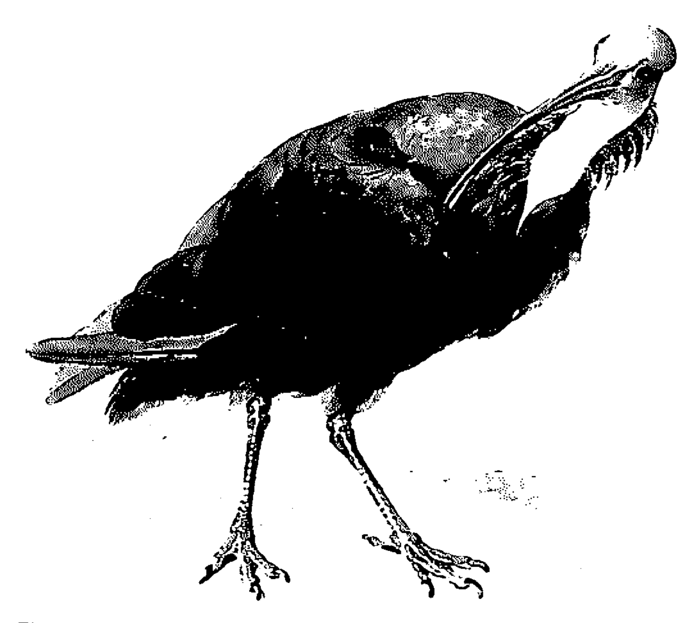


Fig. 78 Bald ibis *(Geronticus calvus)* drawn by Aert Schouman in 1756 (Museum Boymans-van Beuningen, Rotterdam).

in 1788, he remarked that the specimens were 'sehr bestäubt und elend aufbewahrt' (cf. Gijzen 1938:28). Whatever survived in 1820 was added to the collection of the Rijksmuseum van Natuurlijke Historie (RMNH), Leiden which was founded in that year (Gijzen 1938).

As noted by Husson & Holthuis (1969:149), the RMNH archives contain a list of animals which were transferred from the University collection to the museum and which were still present on 1 May 1834. This list of 4 pages (2 folio sheets) enumerates the mounted specimens and the skeletons separately indicated by scientific species name only. As for mounted specimens (skins), there were 111 mammal specimens of 75 species, 38 amphibia and 18 fishes; for skeletons there were 37 mammal specimens of 27 species, 23 bird specimens of 20 species, and 8 amphibia. There is a separate list of invertebrates (13 pp.). This is just a list of names and there are no indications of appearance or locality. It may be reproduced here as far as mammals and birds are concerned. The number of specimens is one per species, unless a number is added in brackets. Possible species from the Cape of Good Hope are italicised, the others are given in roman print.

A. Mounted mammals: Cercopithecus sabaeus (2), C.ruber, C.lamitatus, C.simicus, C.radiatus, Innuus ecaudatus, I.rhesus, I.nemestrinus, Papio silenus, P.sphinx (2), P.mormon, Hapale rufimana, H.rosalia, H.tachus, Cebus apela (3), C.robustus, Lemur mongoz, Nasua rufa, Ursus arctos (2), Meles vulgaris, Mephitis mephitis, Mustela foina, Lutra brasiliensis, *Herpestes ichneumon*, Viverra civetta (2), *Felis leo* (3), Felis tigris, F.concolor, F.leopardus, F.lynx, Canis vulpes (2), C.familiaris (7), Didelphis cancrivera, Halmaturus giganteus, Phoca vitulina, *Hystrix cristata*, Castor fiber, Cavia cobaya, Sus scrofa (2), *Phacochoerus aethiopicus*, *Orycteropus capensis*, Myrmecophaga 2dactyla, M.jubata (2), Manis brachyura, *Hyrax capensis*, Dasypus bicinctus, Dasypus n.sp., D.9cinctus, Bradypus 3 dactylus, Sciurus vulgaris (2), Mus rattus (2), Talpa europaea (2), *Chrysochloris capensis*, Erinaceus europaeus (3), Sorex fodiens, S.araneus (2), Delphinus tursio, D.delphis, D.phocoena (3), Manatis australis, Elephas indicus juv., *Hippopotamus amphibius* pull., Rhinoceros sondaicus pull., *Equus zebra*, *Antilope scripta*, *A.springera* (2), *A.dorcas*, Capra aegogeros, C.hircus (5), Ovis aries (4), Cervus elephas (2), Camelus dromedarius, Bos taurus, B.bubalus, Antilope rupicapra.

B. Mammal skeletons: Simia satyrus jun., Hybolates leuciscus, Cercopithecus diana, *Papio sphinx* (3), Innuus ecaudatus, Cebus ?, Ursus arctos (3), Hyaena striata, *H.crocuta*, Canis familiaris (2), C.lupus, Trichechus rosmarus, Phoca vitulina, Halmaturus giganteus, *Hystrix cristata*, Castor fiber, Camelus dromedarius, Capra hircus, Cervus dama (2), *Camelopardalis giraffa*, Antilope mergens, Elephas indicus, *E.africanus*, Manatus australis, Monodon monoceros, M.taandus, Delphinus tursio (2), Balaena rostratus.

C. Bird skeletons: Vultur fulvus, V.papa, Falco leucocephalus, F.buteo, F.peregrinus, Pavo cristatus, Crax alector, Meleagris gallopavo, Otis tarda, Anas boschas, Podiceps cristatus, Mergus albellus, Mormon fratercula, Haematopus ostralogus, Numenius arquata, Larus marinus, Ardea cinerea, *Struthio camelus* (2), Carbo cormoranus, Cygnus olor (2).

Allamand did not publish much. He wrote only one small paper on an American fish (Allamand 1755) and a few others on non-zoological subjects.[219] He also edited a few books (v.d.Klaauw 1926:4) including the journal of Hop's expedition (see 5.78) and a new edition of Buffon's *Histoire Naturelle*.[220] The last work contained a number of his additions based on material provided by Gordon and a few other informants. Buffon's work is bibliographically very complex, for which reason the discussion here will be confined to the *Nouvelle Edition* of the *Histoire Naturelle* which was published in Amsterdam, J.H.Schneider, in the French language. Allamand added 40 contributions about mammals not or insufficiently described in the original Paris edition of the work. The additions including information provided by Gordon and a few others about Cape animals are identified below.[221]

George Louis Leclerc de Buffon (1707-1788), working at the Cabinet du Roi in Paris, attempted to present adequate descriptions of all animals. These were recorded in the *Histoire Naturelle*. The first section of this multi-volume work dealt with the theoretical background and with the mammals. This part initially was completed in 15 volumes (1749-1767). Corrections and additions necessitated 7 supplements which followed between 1774 and 1789. Three of these supplementary volumes deal with mammals not included earlier, i.e. supplements 3 (1776), 6 (1782) and 7 (1789).

Most scientists working in Holland in that period liked to follow Buffon rather than to rely on the *Systema Naturae* by Linnaeus. They soon found that (1) many mammal species had not been included by Buffon, and (2) some descriptions were not as accurate or extensive as they could have been. People like Allamand and Vosmaer made Buffon's *Histoire Naturelle* their point of reference. This work enabled them to sort their own

219. In the same volume in which Allamand (1755) appeared, there were two further contributions from his hand: 'Meteorologise ofte weêrkundige waarnemingen, genomen aan de Kaap de Goede Hoop, in the jaren 1751 en 1752, door den Heere Abt de la Caille,' *Verhandeling* 2 (1755): 93-116; and 'Nieuwe proef om het zeewater drinkbaar te maken, uitgevonden van den heere Hales,' *Verhandeling* 2 (1755): 380-382.

220. On various Buffon editions published in Holland, see Tuyn (1966:78 note II) and Rookmaaker (1980:15-17).

221. A complete review of all 40 additions by Allamand is still in preparation. Some general information can be found in Rookmaaker (1979:96-105).

HISTOIRE

NATURELLE

DU GNOU, DU GRAND GERBO,

ET DE L'HIPPOPOTAME.

PAR Mr. ALLAMAND.

Professeur en Philosophie, & en Histoire naturelle, à l'Université de Leyde.

AVEC DE TRES BELLES FIGURES.



A AMSTERDAM,

CHEZ J. H. SCHNEIDER.

M DCC LXXVI.

Avec Privilège de nos Seigneurs les Etats de Hollande & de Westfrise.

Fig. 79 Title-page of Allamand's description of three African mammals published in 1776.

collections and to identify the specimens which were left out by Buffon.

Allamand edited the *Nouvelle édition* of Buffon's *Histoire Naturelle* published by J.H.Schneider in Amsterdam, written in French. The volumes 1-15 appeared between 1766 and 1771 and followed the contents in the order of the Paris original. There were a few changes, like placing a few articles in volumes 5 and 15 rather than volumes 4 and 14, as indicated in an 'Avertissement du Libraire sur cette nouvelle édition' at the start of vol.15. Allamand too included a few new additions describing species not present in the original. He authored one addition in vol. 12 (1769), 1 in vol. 13 (1770), 1 in vol. 14 (1770) and 9 in volume 15 (1771) of the *nouvelle édition*. Volume 15 also contained a note by Petrus Camper and a few by Jacob Christoph Klöckner.

With the publication of volume 15 in 1771, the work was complete because Buffon had not yet published his first supplement. Those Paris supplements started to appear in 1774. They were later added to the Amsterdam edition, but it must be noted that they were numbered differently and they contain several additions by Allamand. This may be recorded here in the chronological order of the Amsterdam edition.

1. Amsterdam Supplément 1 (1774) reproduced the 'Suite de la théorie de la terre et d'introduction à l'histoire des animaux' of Paris Supplément 1 (1774).
2. Amsterdam Supplément 2 (1776) reproduced the 'Suite à la theorie de la terre et de préliminaire à l'histoire des vegetaux' of Paris Supplément 2 (1775).
3. in 1776, Allamand published three new descriptions 'Histoire naturelle du gnou, du grand gerbo, et de l'hippopotame.' There is a separate title-page with this title, but the pagination (pp.113-126) fits between the last page of volume 15 (1771) and its index. These descriptions are here quoted as Allamand (1776).
4. Amsterdam Supplément 3 (1778) is the first 'Suite à l'histoire naturelle de l'homme' of Paris Supplément 4 (1777).
5. Amsterdam Supplément 4 (1778) is the first 'Suite à l'histoire des animaux quadrupèdes.' The first part of this volume (pp.1-139) largely followed the text of Paris Supplément 3 (1776). In that Paris volume, however, Buffon included some of the additions included by Allamand in Amsterdam vol.15 (1771) which Buffon only noticed much later: 'je n'en ai eu connaissance qu'aujourd'hui 23 juillet 1775' (Buffon 1776, suppl.3: 85). In Amsterdam Supplément 4 there are another 9 new descriptions by Allamand.
6. Amsterdam Supplément 5 (1781, 1785) is the second 'Suite à l'histoire des animaux quadrupèdes.' At this point the matter becomes more complicated because the new descriptions given by Buffon were not always copied by Allamand, while the additions by Allamand too were not always reproduced by Buffon. However, the Amsterdam supplément 5 started with 16 additions by Allamand (pp.1-60). The second part (pp.61-176) followed most of the text of Paris Supplément 6 (1782). The Amsterdam Supplément 5 apparently appeared in these two parts (as suggested by Tuyn 1966:78, Rookmaaker 1980:17). The title-page of the whole volume is dated 1785. However, some of Allamand's additions were repeated or abstracted in Paris Supplément 6 which appeared in 1782. Buffon, in that supplement, four times commented on the dates of these additions: '... publiées à Amsterdam au commencement de cette année 1781' (p.68), 'publiées cette année 1781, dans un supplément à l'édition de Hollande des mes ouvrages' (p.116) and 'imprimée à Amsterdam cette année 1781' (pp.135, 180). We may conclude that the first part (pp.1-60) of Amsterdam Supplément 5 appeared in 1781 (no separate title-page is known), and the second part (pp.61 ff.) in 1785.
7. Amsterdam Supplément 6 (1779) reproduced 'Les époques de la nature' of Paris Supplément 5 (1778).
8. Amsterdam Supplément 7 (1799) is a late reproduction of the third 'Suite à l'histoire des animaux quadrupèdes' of Paris Supplément 7 (1789) as far as not published before.

In most cases, Buffon acknowledged his source when he copied one of Allamand's additions for his Paris edition. Sometimes he illustrated an article by a different plate, sometimes he only summarized the text provided by Allamand. It has, of course, not been possible to compare all these contributions in both editions word for word. Only in one case, a curious change was noted. While describing the dentition of the black rhinoceros (*Diceros bicornis*), Allamand (1781:11) mentioned the presence of '28 dents en tout, sept molaires à chaque coté des deux machoires' and no incisors. Buffon (1782:81) silently changed this to read 'vingt-huit dents en tout; savoir six molaires à chaque coté des deux machoires & deux incisives en haut & en bas.' This remarkable African rhinoceros with incisors, accepted by an authority like Buffon, caused great confusion in rhinoceros classification in the first half of the 19th century. Lesson (1842:159) even named it as a variety of *Rhinoceros bicornis*: 'var.ß *Rhinoceros Gordoni*' (Rookmaaker 1983b:55, 1983c:44-45).

Allamand's *Nouvelle édition* was translated into Dutch by C.van Engelen. This *Algemeene en Byzondere Natuurlyke Historie* was published by J.H.Schneider, Amsterdam in 20

volumes, 1773-1802. It contained many of the additions written by Allamand, in a different order. Tuyn (1966:78) suggested that some of these additions were first published in this Dutch edition, although Allamand wrote them in French. When the changed date of the first part of Amsterdam Supplement 5 is accepted, this is no longer the case. Although in a few instances there is a tie of dates, we may assume that all the 40 additions contributed by Allamand first appeared in the Amsterdam *Nouvelle édition* published in French.

Among these 40 additions, there are 27 dealing with mammals from the Cape of Good Hope. Of these, 20 include information provided by Gordon. All 27 are noted below with the emphasis on those including Gordon's material, following the Amsterdam edition.

Volume 12, 1769

1. Addition à la description de l'hippopotame (1769, pp.28-29, pl.III).

Allamand described and illustrated the hippopotamus (*Hippopotamus amphibius*) after a stuffed specimen in the collection of Leiden University, where it had been for over a century (since 1670).

Volume 13, 1770

2. Description de la giraffe (1770, pp.17-19, pl.I).

Allamand described and illustrated a young *Giraffa camelopardalis* sent to Leiden University by Ryk Tulbagh. This was the young female caught during the expedition to Namaqualand led by Hendrik Hop, on 5 October 1761. It had died after 5 days and the remains were preserved (Rookmaaker 1983a:72).

Volume 15, 1771

3. Le sanglier d'Afrique (1771, pp.45-49, pl.I)

Allamand knew 3 species of *Phacochoerus aethiopicus*: a stuffed one in unknown depository, an animal in the collection of prince Willem V which had lived in the menagerie 1765-1766, and one sent by Ryk Tulbagh from the Cape in 1770 and still living in 1771.

Volume 15, part 2, 1776

4. Le Gnou (1776, pp.113-116, pl.XIV)

Allamand earlier received a drawing of this animal (*Connochaetes gnou*), but it had remained unused because he was uncertain about its reality. Gordon told him that it in fact existed and that the Hottentots called it gnou. Gordon brought 'la dépouille de deux têtes; il m'en a donné une, que j'ai placée au Cabinet de notre Académie.' This refers to observations made by Gordon in 1773-1774. The paper further described a specimen received alive in the prince's menagerie around that time.

5. Addition à l'histoire des gerboises (1776, pp.117-119, pl.XV)

Besides a kangaroo, Allamand described and illustrated a springhaas (*Pedetes capensis*) sent to the prince's menagerie from the Cape by a Mr Holst. It had been caught near the Sneeuwbergen, the colonists called it 'aardmannetje' or 'springende haas'.

6. Addition à l'histoire de l'hippopotame (1776, pp.120-126, 1 pl.)

According to Allamand (p.124), 'Mr le Capitaine Gordon a eu plus d'une fois occasion de voir des Hippopotames, dans les différens quartiers de l'Afrique méridionale qu'il a parcourus; il les a observés en véritable naturaliste & que nous nous faisons un plaisir d'inserer ici quelques particularités, qu'il a bien voulu nous communiquer: on ne sauroit en avoir de meuilleures, ni de plus sures.' This is followed by two pages of notes attributed to Gordon. This must refer to observations made during his first visit to South Africa.

Supplement 4, 1778

7. Addition à l'article de zèbre (1778, pp.140-141, pl.LIX)

At the end of this description of the zebra (*Equus zebra*), Allamand (p.141) noted that 'Mr le capitaine Gordon en vit un jour passer une troupe de plus cinquante assez près de lui. Il auroit pu tirer au milieu d'eux; mail il ne voulut pas blesser inutilement plusieurs de ces beaux animaux . . .' This passage is not found in the Gordon Atlas or the Gordon Manuscripts, and probably still refers to the 1773 visit.

8. La gazelle à bourse sur le dos (1778, pp.142-143, pl.LX)

The description was made after a springbok (*Antidorcas marsupialis*) alive in the prince's menagerie which had been donated by Gordon in 1774. Allamand mentioned Gordon's arrival at the Cape in 1777: 'depuis qu'il y est arrivé, j'ai eu la satisfaction d'appendre par ses lettres, qu'il a déjà découvert trois animaux qu'il m'envoie, & qui jusqu'à *présent* n'ont jamais été vus en Europe.' The material had not yet arrived.

9. Addition à l'histoire du condoma ou du coedoe (1778, pp.143-146, pl.LXI)

One koedoe (*Tragelaphus strepsiceros*) had been seen alive in the prince's menagerie in 1776, but it died. It had been seen and described soon after arrival in Amsterdam by Klöckner.

10. Addition à l'article du pasan (1778, pp.147-150, pl.LXII)

Allamand recounted (p.148) how one of these animals (*Oryx gazella*) had been killed by Gordon 'à une assez grande distance du Cap.' It is not clear when this would have happened. The text is not included in the Gordon Atlas.

11. Addition à l'article du tzeiran (1778, pp.151-153, pl.LXIII)

Klöckner bought a skin 'dans la boutique d'un marchand' maybe in Amsterdam. This specimen of *Hippotragus leucophaeus* was described and depicted. It was preserved in the collection of J.C.Sylvius van Lennep (1746-1776) which later was included in the museum of the Hollandsche Maatschappij in Haarlem.

12. Le Klip-das (1778, pp.157-160, pl.LXV)

Two of these animals (*Procavia capensis*) were shown at different times in the menagerie Blauw Jan managed by Mr Bergmeyer in Amsterdam. They had been sent from the Cape of Good Hope. The description was provided by Klöckner.

Supplement 5, part 1, 1781.

The vignet shown at the beginning of this volume, depicting some animals here described was illustrated by Rookmaaker (1985a, fig.18).

13. Addition aux articles de l'hippopotame (1781, pp.1-8, pls.I-IV)

Gordon sent to Allamand 'au commencement de cette année 1780, deux dessins qui répresentoient un Hippopotame mâle & une femelle, faits d'après les animaux mêmes, au moment qu'on venoit de les tuer' (p.2). These drawings were engraved as plates I and II. This is followed by Gordon's observations on the habits and appearance of the hippopotamus. He also gave

some anatomical details, including clarification about the stomach. He described 'un jeune hippopotame' and depicted the outside and inside of its stomach on two drawings engraved as plates III and IV. At the end there is a list of measurements of a male and female hippopotamus, the last one killed on 22 January 1778 'près de l'embourchure de la rivière Gamtoos.' Many of the observations included in this paper are again found in the Gordon Atlas or in the Gordon Manuscripts. Pl.I is similar to GA 197 not reversed, but the engraving is less well executed. Plate II is like GA 198.Plates III and IV are both present on GA 209a as sketches. There are no explanations on GA 209a, while Allamand (p.5) mentioned some notes 'sur les marges de son dessin.'

14. Addition aux articles du rhinocéros (1781, pp.9-13, pl.V)

Gordon sent a drawing of a rhinoceros (*Diceros bicornis*) to Allamand: 'C'est encore à M.le capitaine Gordon que l'on doit la connaissance de la véritable figure de ce rhinocéros.' Allamand here included 'le précis de quelques remarques qu'il a ajoutées au dessin qu'il m'en a envoié' (p.9). The paper ends with 36 measurements of a specimen killed by Gordon 'près de la source de la rivière Gamka, ou rivière des Lions.' Plate V 'Le rhinocéros du Cap' (C.F.Fritzsch sc.) is similar to GA 205 not reversed (both are illustrated together in colour in Rookmaaker 1985a:290-291).

15. Le Kwagga (1781, pp.14-15, pl.VI)

Gordon had 'envoié le dessin & la description' of a young quagga (*Equus quagga*) which he had caught alive, but which he had had to release due to lack of milk. He could not obtain an adult specimen. Another young quagga had been taken 'qu'il réserve pour la ménagerie de Mgr.le Prince d'Orange' (p.15). Plate VI 'Le Kwagga' (C.F.Fritzsch sc.) resembles GA 190 in reverse.

16. Le Canna (1781, pp.16-18, pl.VII)

Allamand received a drawing and notes by Gordon (p.16). The description of *Taurotragus oryx* is based on this information. Plate VII 'Le Canna' (Tringham sculp.) is not unlike GA 163 in reverse.

17. Addition à l'article du Bubale (1781, pp.19-21, pl.VIII)

Allamand presented 'ici la figure d'un mâle, voyez la Pl.VIII: le dessin en est fait d'après l'animal vivant, & j'en suis redevable à M. Gordon, qui m'a envoié en même temps la peau, d'une femelle que j'ai fait remplir & que j'ai placée dans le cabinet de notre Académie.' Most information is based on these notes. Plate VIII 'Le Camaa ou le Bubale' (Tringham sculp.) resembles GA 158 in reverse, showing *Alcelaphus buselaphus*.

18. Addition à l'article de la Taupe du Cap (1781, pp.22-23, pl.IX)

Allamand gave a new plate of this animal (*Georychus capensis*): 'M.Gordon m'en a envoié le dessin.' The species is described, probably according to notes sent by Gordon although this it not stated. Pl.IX 'La petite taupe du Cap' (C.F.Fritzsch sc.) is a little like GA 226 in reverse, but the drawing shows 2 front legs and more white colour on the head.

19. La taupe des dunes (1781, pp.24-25, pl.X)

This animal (*Bathyergus suillus*) was found by 'M.le colonel Gordon, qui ne néglige aucune occasion d'enrichir l'Histoire naturelle par des nouvelles découvertes: c'est lui qui m'en a envoié le dessin.' The information included must have been sent by Gordon. Plate X 'La grande taupe du Cap' (C.F.Fritzsch sc.) is different from GA 216.

20. Addition aux articles du Tamanoir, du Tamandua & du Fourmillier (1781, pp.26-29, pl.XI)

Allamand described the skin of an aardvark (*Orycteropus afer*) sent by Gordon. He apparently did not include a drawing or notes, because the description and measurements were taken from the skin: 'il m'a envoyé la dépouille d'un de ces animaux, tué au Cap de Bonne-Espérance' (p.26) . . . 'J'ai fait remplir le peau que M.Gordon m'a envoiée; ce qui m'a très-bien réussi, & c'est d'après cette peau bourrée que j'ai fait graver la figure de la Pl.XI' (p.27).

21. Addition à l'article des Gazelles (1781, pp.30-32).

This article served as a kind of introduction to the following descriptions of antelopes. It gave some general characteristics of those African animals based on a letter by Gordon. Much of this information is also found on GA 167 *verso*. Allamand added that 'M.le Capitaine Gordon a eu la bonté d'en rassembler plusieurs, qu'il m'enverra l'année prochaine. En attendant, je vai donner la description de quelques uns dont il m'a déjà envoié les peaux & les dessins faits d'après les animaux vivants' (p.32).

22. L'Ourebi (1781, p.33, pl.XII)

Allamand received from Gordon the skin of a female without horns of *Ourebia ourebi*, as Gordon had not yet been able to procure a male. The drawing was made after the living animal. There is a short description probably based on Gordon's information. Plate XII 'L'Ourebi' (C.F.Fritzsch sc.) resembles GA 170 and the female of GA 169 in reverse.

23. Le Ritbok (1781, pp.34-36, pl.XIII-XIV)

Allamand illustrated the two sexes of *Redunca arundinum*. He stated to have received from Gordon 'les dessins & la peau' (p.34). The skin was a female, as appears from the description. The article was probably based both on the skin and on notes sent by Gordon. Pl.XIII 'Rîtbok mâle' (Tringham sculp.) resembles GA 167 in reverse, PL.XIV 'Rîtbok femelle' (Tringham sculp.) is like GA 168 in reverse.

In this paper, Allamand also mentioned another species living in the mountains: 'M.Gordon m'a envoié la peau d'un autre individu de cette espèce, qui ressemble tout à fait à celui que je viens de décrire par les cornes, mais qui en diffère par sa couleur, qui est d'un fauve roussâtre très-foncé, c'est apparemment un de ceux qui habitent les montagnes' (p.34). Afzelius (1815:250) later based his *Antilope* [= *Redunca*] *fulvorufula* on this variety described by Allamand.

24. Le Bosbok (1781, p.37, pl.XV)

Gordon sent 'le dessin de cet animal, y a joint la peau d'une femelle' of *Tragelaphus scriptus*. The description may have been based on Gordon's information, but it is not stated. The 7 measurements could have been taken from the skin. Pl.XV 'Le Bosbok' (C.F.Fritzsch sc.) is similar to GA 165 not reversed.

25. Le Bontebok (1781, pp.38-40, pl.XVI)

Gordon sent the skin of this antelope, *Damaliscus dorcas*. There is no indication of any drawings or notes. The description could have been made from the skin. Pl.XVI 'Le Bontebok' (J.H.del.1780, C.F.Fritzsch sc.) was drawn after the skin and differs from GA 164. In a footnote, Allamand stated receipt from Gordon of the skins of a pasan (*Oryx gazella*) and tzeiran (*Hippotragus leucophaeus*): 'Dans l'article du Pasan & du Tzeiran . . . M.Gordon m'a envoié les peaux de l'un & de l'autre, qu'il a tués au Cap de Bonne Espérance' (p.38).

26. Addition à l'article des Orangs-Outangs (1781, pp.45-48, pl.XVIII)

In this paper on large monkeys, Allamand mentioned that Gordon had sent 'le dessin d'un orang-outang, dont le Roi de Asham, païs situé á l'Est de Bengale, avoit fait présent, avec plusieurs autres curiosités, à M.Harwood, Président du Conseil Provincial de Dinagipal' (p.47). This obviously was a specimen seen at the Cape on transport from Bengal to Europe. From the description, name and locality, this appears to refer to *Hybolates hoolock* (Harlan, 1834).

27. Addition aux articles de la giraffe (1781, pp.49-60, pls.XIX-XX).

Gordon had met the giraffe in the course of his fourth expedition and he sent some material to Allamand: 'Mr.Gordon a fait un second voyage dans l'intérieur de l'Afrique méridionale, & il est parvenu jusqu'au païs où les Giraffes se trouvent. Il en a vu plusieurs, & même *il* en a tué quelques-unes. Il les a examinées avec toute l'attention d'un naturaliste judicieux; il m'en a envoié un dessin exact, que j'ai fait graver, planche XIX, & ses lettres m'en ont donné une description assez étendu' (p.49). Gordon also included 'la figure du squelette que je joins ici, planche XX, . . . Elle a été dessinée par un homme qui n'avoit aucune connaissance de l'anatomie, comme il est aisé de s'en appercevoir, quoique j'aie taché de la rectifier en quelques endroits, d'après ceux des os de giraffe que j'ai' (p.57-58). Allamand mentioned that Gordon had presented 'tous les os' to the cabinet of prince Willem V which were being mounted by Mr.Onymos.

Plate XIX is similar to GA 149, pl.XX of the skeleton is like GA 152, 153 but it is improved in the delineation of the bones and it shows the skull rather than the head. These various plates and drawings were illustrated in Rookmaaker (1983a). It may be mentioned that the plate of the skeleton was reproduced in the Paris edition by Buffon (1789, pl.82) with an additional structure in the shoulder region and a few other changes. This revised copy was the one used by Levaillant in his drawing now in Cape Town (CT 89, see Meester 1973).

CHAPTER 8

Francis Masson

8.1 BACKGROUND

The life of Francis Masson (1741-1805) was devoted to the collection of plants in different parts of the globe for the benefit of the Royal Botanic Gardens at Kew. He twice spent some years at the Cape of Good Hope, 1772-1775 and 1786-1795. Although many details are unkown, a general idea of his life and work can easily be taken from the biographical notes by J.E.Smith (1819) and Britten (1884a,b, 1920:41-43). Karsten (1958-1961) presented all available information, especially botanical, in a series of papers which should be consulted by every student of Masson. Forbes (1947a, 1965) gave some valuable details about Masson's travels and the geographical content of his work.

Masson wrote a long paper about his first stay in South Africa published in the *Philosophical Transactions of the Royal Society* in 1776. This period is documented too in a few manuscript sources and drawings. The attribution of those to Masson is very likely, but never straightforward. About his second stay in South Africa much less is known. It is not necessary here to review all available data. Masson may have been quite active as a botanical collector, his contributions to zoology were small and marginal. I shall concern myself here mainly with the little that can be pieced together about these few excursions into zoology.

8.2 BIOGRAPHY

Francis Masson[1] was born in Aberdeen, Scotland in August 1741.[2] He made his way to London where he was employed as an under-gardener at the Royal Botanic Gardens at Kew, at that time directed by William Aiton (1731-1793). When Joseph Banks (1743-1820) returned from his journey around the world with Captain Cook on the *Endeavour* on 13 July 1771, he suggested to King George III that somebody with botanical interest could profitably be sent to the Cape of Good Hope. Masson volunteered for the adventure. Banks arranged his passage on the *Resolution*, on which he accompanied captain James Cook on the first leg of his second voyage of discovery. Masson went on board on 5 May 1772 as a supernumerary and he was discharged on 22 November 1772 (Beaglehole 1969,II:886). J.R.Forster, also on that same ship, does not mention his acquaintance with Masson in his journal (Hoare 1982). They reached the Cape of Good Hope on 30 October 1772. While staying in South Africa, Masson made three expeditions into the interior described in his paper of 1776 (see 8.5) Masson left the Cape in March 1775 to return to England.

Apparently the people in England were well satisfied with his performance. On 19 May 1776 he left England again to travel through the Azores, Madeira, Teneriffe and the West Indies and returned in November 1781. During the years 1782 to 1785 he was away once again, this time travelling in Spain, Portugal and Tangiers. From the very beginning of 1786 until March 1795 Masson again stayed at the Cape. With the exception of a few notes in the preface of his book on *Stapeliae Novae* (1796), Masson never published any account of his activities during those years. There are two sources which give us some insight in his life in South Africa at that time. These were discussed by Karsten (1958-1961). As the results were primarily geographical and botanical, they only need to be mentioned here. The first source is Masson's rather regular correspondence with Banks: 37 letters written between 21 January 1786 and 10 April 1794 in the Mitchell Library, Sydney.[3] The second source is a large folio volume with about 100 drawings of Cape plants, some of which used to be in the possession of James Lee (1715-1795) of the Vineyard Nursery at Hammersmith, London. They were forgotten until a great-grandson, Charles Lee, donated the volume to the Botany Library of the British Museum (Natural History), London (Baker 1885, Britten 1920:42, Willson 1961:42). These drawings sometimes have dates and places written on them which has given the possibility to piece together some of Masson's travels in the interior (Forbes 1965:38). No new information has come to light since that time.

These sources do not contain any information about Masson's zoological endeavours. Masson only mentioned once that he was not very active in the animal kingdom. In his first letter to Thunberg on 21 March 1793, he wrote: 'To Insects & Fishes I have made a prety good collection, but of the other parts of natural history I have done nothing.'[4] That is all. Masson must have observed many animals during his journeys, but in the absence of his journals, if he kept any, an additional discussion is superfluous. Some interesting notes about Masson's expeditions and excursions during his second stay in Southern Africa were provided by Forbes (1965:37-38), Karsten (1959b) and Gunn & Codd (1981:247). Apparently, Masson did not go very far inland, the Kamiesberg being the most northern locality recorded.

When Masson returned to England, he prepared his *Stapeliae Novae*. He either was a devout collector or he had grown unaccustomed to the way of life in his home country. In any case, in 1797 he left again, this time to the New World. He arrived in New York at the end of 1797 and slowly travelled

1. Not to be confused with Charles Mason (1730-1787), who visited the Cape of Good Hope in 1761 to witness the transit of Venus.
2. Small additional notes on Masson's biography: Gunn & Codd 1981:246-249, Hutchinson 1946:617, Lasègue 1845:178-179, Lemmon 1968:43-73, Lysaght 1959:263, MacOwen 1886: xxxix, Mossop 1938, Muir 1933b.

3. Many of these letters from Masson to Banks were discussed and quoted by Karsten (1959b). Since there is nothing zoologically relevant, it is not necessary to comment here.
4. Letter in Uppsala University Library, see Karsten 1959b:302.

westwards, to Niagara, Queenstown, Fort Erie and back to Niagara. In October 1798 he was in Montreal where apparently he made his base, because in December 1805 he died there. Masson's botanical contributions, both in life plants and in specimens, were considerable (Britten 1884a, Forbes 1965:37, Gunn & Codd 1981:246-249, Karsten 1958, 1960).

8.3 BIBLIOGRAPHY

Only 3 publications were signed by Masson. One of these, a description of the island San Miguel (1779) does not concern us here. He described his first stay in a report of 1776, the *Account*. His second stay only resulted in a botanical book, *Stapeliae Novae* (1796).

8.3.1 *Account of three journeys*

Masson returned to England in the middle of 1775. Soon after, he started to write a report on his activities at the Cape 'transcribed from my journal.' These journals are not known to exist at present. This description was sent to Sir John Pringle (1707-1782), president of the Royal Society. It was subsequently read, in 3 installments, to the Society on 1, 22 and 29 February 1776 and published in the *Philosophical Transactions* of 1776, covering some 50 pages. This is the first description of the South African interior by an English eye-witness to appear in print. It is an unembellished travel account which would have aroused more attention and interest if it had included more details about the unknown Cape fauna, flora and people. There were no plates. The zoological content is minimal. Sometimes Masson told that an animal was seen, but he gave names only and left the appearance to the imagination of the reader.

8.3.2 *Stapeliae novae*

This book was prepared after Masson's second stay at the Cape. It contained plates and Latin descriptions of 41 plants then included in the genus *Stapelia*. It was published in 4 parts:

1. Plates 1-10, 27 April 1796
2. Plates 11-20, 1 March 1797
3. Plates 21-30, 20 May 1797
4. Plates 31-41, 20 June 1797

Karsten (1961:21-37) described the volume, quoted the dedication to king George III and the almost complete text of the Preface (in English). In this preface Masson presented some background information about his stay in Africa and his activities. He enumerated a few animals: '... a wonderful variety of animals, such as the elephant, the rhinoceros, the hippopotamus, the camelopardalis, numerous species of the genus antelope, the lion, the panther, hyaena, and many other ferocious animals. ... The ornithology of the Cape is very interesting; incredible numbers of strange sorts of birds, quite unknown to the inhabitants, often migrate from the interior country, and visit the European settlements' (Masson 1796:v).

The originals for the plates probably were prepared by Masson (Dyer 1949:48, Karsten 1961:36). However, the plants shown on plates 13 (*Stapelia pulvinata*) and 40 (*S.gordoni*) are identical to drawings in the Gordon Atlas. It is likely that Gordon had allowed Masson to copy those. Only two of the 41 originals are known, in a set of Masson's drawings in the Botany library of the BMNH: those for plate 1 (*S.ciliata*) and for pl.40 (*S.gordoni*), the latter after Gordon (Britten 1884b:145, Karsten 1961:28,34).

8.4 MASSON'S DRAWINGS

8.4.1 *Artist*

There are a few animal drawings connected with the first stay in South Africa by Masson. These were sent to John Pringle in London in 1772-1775 and later handed over to Joseph Banks. They are now preserved in the Print Room of the British Museum, London (199*B 4). It is generally assumed that Masson drew the botanical drawings now in the BMNH and the zoological drawings just mentioned (Britten 1884b, Karsten 1961). A few of the drawings were signed by Masson. It is best to follow this attribution, but there are two circumstances which seem to contradict this.

Kerr (1818:199), discussing some botanical drawings, stated how Masson 'unexpectedly met with, among the Dutch soldiers who then guarded that colony, an artist of great skill as a designer of the objects of natural history. Availing himself of the circumstance, he formed a considerable portfolio of coloured drawings of the samples of the more curious objects of his pursuit.' This passage may refer to Masson's first stay because Kerr mentioned the years 1772-75. It has been a matter of speculation who this artist could have been. MacOwen (1886:xli) suggested Franz Pehr Oldenburg (1740-1774), a Swedish soldier employed by the Dutch East India Co., who had a special interest in botany. He accompanied Masson on his first expedition. He is not otherwise known as an artist, but maybe he was. The dates recorded on some botanical drawings (1775), however, do not tally with this supposition. Oldenburg left the Cape in 1774 for a trip to Madagascar where he died (Winquist 1978:49, Gunn & Codd 1981:265). Another candidate for the soldier-artist mentioned by Kerr was Johannes Schumacher, as treated below.

The second circumstance speaking against Masson's artistic skill is the relationship of some drawings with the Gordon Atlas. According to Dr W.R.P.Bourne (in Lysaght 1959:264), the watercolours in the Gordon Atlas depicting 'birds and mammals are identical in style with those in the Print Room vol.199*B 4 attributed to Masson, and that some are indeed duplicates.' This suggests that not Masson, but R.J.Gordon, or at least an artist in his employ, was responsible for those drawings. It is known that Gordon used Schumacher for this kind of work. Again, however, there is an impossibility of dates. Gordon was at the Cape in 1773-1774, but nothing is known about any drawings being done at that period. The drawings in the Gordon Atlas were all made after his second arrival in June 1777.

It is not possible to solve the problem without further information and without the possibility of direct comparisons. It appears best for the present to credit Masson with these drawings, bearing in mind that he could have bought some or all of them in Cape Town.

8.4.2 *Raper's drawings*

During his second stay, Masson apparently assembled more

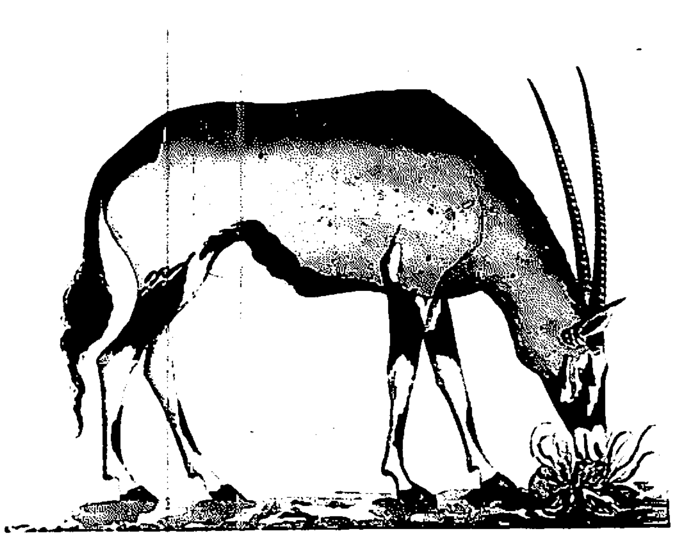


Fig. 80 Gemsbok *(Oryx gazella)* drawn by George Raper in 1792 after an original by F. Masson (see 8.4.2, folio 31).

drawings. Nothing is known about the whereabouts of that collection. However, two such drawings owned by Masson were copied in Cape Town by George Raper (1767-1797).[5] Raper visited the Cape in 1789 (see 7.6.4). He was much interested in natural history and made many drawings during his travels (Hindwood 1964). One set of 73 drawings is in the British Museum (Natural History) entitled 'Collections of views / sketches and natural history in a voyage to Botany Bay in 1787-1788-1789-1790-1791 and 1792 by Geo.Raper.' Two drawings are interesting here:

f.31 'Antelope from an original drawing in the possession of Mr.Mason Cape-Good-Hope' signed and dated 1792. It shows *Oryx gazella*.
f.35 'Cassowary from an original drawing in the possession of Mr.Mason - Cape Good Hope' signed and dated 1790. This drawing was illustrated by Hindwood (1964). It shows *Casuarius casuarius*, an Australian bird, possibly the specimen seen in the Cape menagerie by Collins (1798:xxxiii).

The dates given on the drawings (1790) probably were those when the sketches were completed, not when they were made. Raper is not known to have visited the Cape in 1790 (Hindwood 1964:38).

8.4.3 *The zoological drawings in the British Museum*

The only known zoological drawings once owned by Masson are incorporated in a volume kept in the Print Room of the British Museum, London, 199* B4, entitled on the spine: 'Natural History Drawings Various artists. Banks Collection.' It was once part of the library of Joseph Banks. It is a rather mixed collection of some 130 drawings with paintings by various artists made in different periods. Masson did not sign the 12 drawings in this volume attributed to him, but Banks or his amanuensis noted that he sent them to London. Forbes & Rourke (1980:53) reported their existence noting that none were similar to drawings in the Paterson Albums.[6] All ornithological drawings contained in this volume were described and discussed by Lysaght (1959:344-349).

Although there are only 12 drawings attributed to Masson in this volume, it will be helpful to discuss at the same time 16 other drawings of Cape interest.[7] As will appear, those relate to the journey of Banks on the *Endeavour*, 1768-1771. The Cape drawings on folios 33-60 can be divided in 4 groups:

1. folios 33,50,51 without signature or attribution,
2. folios 34-45, attributed to 'Mason' which should be Masson,
3. folios 49, 58 sent to Banks by 'Mrs.Brant' in 1772. Another drawing with the same attribution is one of a crowned pigeon from New Guinea, folio 75. Lysaght (1959:347) suggested that these 3 drawings were very similar in style to those sent by Masson and 'one can scarcely avoid the conclusion that they are by the same hand.' Nothing can be added to that at present. 'Mrs.Brant' was the wife of Christoffel Brand (1730-1815), bookkeeper of the East India Co. in Cape Town and after 1774 Resident of Simonstown (Gunn & Codd 1981:102).
4. folios 46-48, 52-57, 59, 60 connected with the visit of Joseph Banks (1743-1820) to Cape Town in March and April 1771 (see 5.70).

There is a clear link between this volume of drawings and the manuscript with descriptions of Cape animals prepared by Daniel Solander for the benefit of Banks. This 'Solander ms.' was discussed in 5.70. Solander added in 11 cases that there was a drawing available, i.e. 'Fig.pict.' In all cases there is a corresponding drawing in this volume 199*B 4, except Solander's '*Capra rupestris*' which is not present.

The drawings representing Cape animals in this volume can now be enumerated in the sequence in which they are bound. The numbers are those of the folios, preceded by the indication B to identify this collection. The folio numbers are followed by the present identification of the animal, which can be found in Lysaght (1959) as far as the birds are concerned.

B 33 *Lepus capensis*: 'Lepus capensis, magnitudine L. cuniculus.' A hare jumping. The animal resembles that on GA 228.

B 34 *Georychus capensis*: 'Mus capensis, S.N.XIII, 140. Spalax capensis Linn.' On verso: 'Mus dentex; Mus capensis S.N.XIII.140. Spalax capensis Linn.fil.' and 'Sent from Cape of Good Hope by Mr.Mason to Mr.Pringle who gave it to me and also a stuffed specimen of the animal. On a paper sent with it were the following notes, viz. this is the common mole of the Cape which burroughs under ground & casts up heaps in the same manner as the Talpa eu. [ropaeus] & makes great destruction in the gardens eating the roots of all esculent plants in the fields. Its food is the roots of Ixia Gladiolus, Iris Geranium &c in the sand country it grows as large as a rabbit. I am uncertain whether or not the large is the same species as the small. N.B.: I have a specimen of the large also which is evidently a different species.'

B 35 *Fulica cristata*: 'Fulica' and verso: 'Mr.Mason, Cape of Good Hope 1773.'

B 36 *Francolinus capensis*: 'magnitudine Gallina' and verso: 'Sent from the Cape of Good hope to Sir John Pringle by Mr.Mason who gave it to me'; and: 'called here pheasant. Inhabits coppies (?) by the sides of rivers, and in marshes amongst the reeds, digs

5. George Raper was further discussed in the chapter on R.J.Gordon, 7.6.4.

6. Forbes & Rourke (1980) referred to folios 166-194, total 29 (not 28!) drawings. The volume as a whole shows two continuous sets of numbers. First, each folio is numbered in the upper right hand corner, f.1-130, which is followed here. Each drawing is again numbered on the back, usually in pencil, from 135 to 267, which numbers were used by Forbes & Rourke.

7. This discussion largely follows Lysaght (1959) for the bird drawings. I was able to consult the volume several years ago, but I have not been able to compare the drawings with those in other collections.

up and eats the small bulbs of Ixias Gladiolus, about the size of a Poulet.'

B 37 *Pterocles namaqua*: 'Tetrao fontana mas: The tail had been rubb'd off in a cage.' See also B 38 and B 41.

B 38 *Pterocles namaqua*: 'Tetrao fontana foemina: a little too large.'

B 39 *Francolinus afer*: 'Tetrao', and verso 'Common Cape partridge. Magnitudine T.perdix. Sent from the Cape of Good Hope to Sir John Pringle by Mr.Mason who gave it to me with a dried specimen.'

B 40 *Vidua macroura*: 'Emberiza vidua L.' and verso: 'Mr.Mason, Cape of Good Hope 1775.'

B 41 *Pterocles namaqua*: 'Tetrao fontana mas:', and verso: 'Sent from the Cape of Good Hope to Sir John Pringle by Mr.Mason who gave it to me with a dried specimen.' There is a description of the bird on the back quoted by Lysaght (1959:345) about its habits and locality: '... generally found towards the country of the Namaqua Hottentots, inhabiting the dry thirsty deserts.' As stated by Lysaght, this drawing was the basis of the description by Latham (1783:750) quoted by Gmelin (1789:754). Both give the locality as 'the country of the Namaqua Hottentots' which Lysaght suggested to amend to 'the most northerly desert country explored by Masson.'

B 42 *Egretta alba melanorhynchos*: 'Ardea' and on verso: 'Cape of Good Hope. Mr.Mason, 1775.'

B 43 *Himantopus himantopus*: 'Charadrius. Himantopus? ½ magnitudo.' Verso: 'Sent from the Cape of Good Hope to Sir John Pringle by Mr.Mason, who gave it to me. Inhabits marshes by lakes, is very rare.'

B 44 *Rostratula benghalensis*: 'Scolopax capensis. Natural magnitude.' On verso: 'Sent from the Cape of Good Hope to Sir John Pringle by Mr.Mason who gave it to me with a dried specimen. Is but rare; the common snipe here being the S. Gallinago.'

B 45 *Agapornis cana*: (verso) 'Mr.Mason, Cape of Good Hope 1775.' A bird from Madagascar unknown in South Africa.

B 46 *Sylvicapra grimmia*: 'Antilope saltator.' See also B 60 reverse.

B 47 *Tragelaphus strepsiceros*: no caption. Solander ms. has 'Capra spiricornis.'

B 48 *Taurotragus oryx*: no caption. Solander ms. has 'Capra torticornis.'

B 49 *Porphyrio porphyrio*: 'Fulica Porphyrio. Riet Haantje, Cape,' and verso: 'Sent from the Cape of Good Hope by Mrs.Brant 1772.'

B 50 *Canis mesomelas*: 'Fokx of Jakhals, from the Cape,' verso: 'Sent from the Cape of Good Hope.'

B 51 *Antidorcas marsupialis*: 'Capra dorcas.' Solander ms. has 'Capra migratorius, springbock.'

B 52 *Scopus umbretta*: 'Rallus cristatus. Cape of Good Hope. Brown p.90 t.35. Pennant Gen.Av.N.64' On the back there is a pencil sketch of the same bird. Solander ms. has 'Rallus cristatus.'

B 53 Unidentified ibis: 'Scolopax leucocephala.' The body is blackish blue, the long bill is reddish, head and legs are grey. Solander ms. has 'Scolopax leucocephala.'

B 54 *Sagittarius serpentarius*: 'Falco sagittarius' and verso 'Falco grallarius. Cape of Good Hope.' The drawing shows two birds, one with the feathers in the neck raised, the other with those feathers in usual position. Solander ms. has 'Vultur protheus, secretary bird.'

B 55 *Dendrocygna viduata*: 'Anas viduata' and verso: 'Anas leucops. Cape of Good Hope.' Solander ms. has 'Anas leucops from Madagascar.'

B 56 *Bugeranus carunculatus*: 'Wattled heron. Latham Syn.3, p.82 n.49 tab.78 from this drawing.' Solander ms. has 'Ardea palearis.'

B 57 *Ardeotis kori*: 'Otis cristata. Cape of Good Hope.' The drawing is surrounded by a brown edge. Solander ms. has 'Otis pavonisus, wilde pfau.'

B 58 *Tauraco corythaix*: 'Cuculus persa, Loerie from the Cape, and verso: 'Sent from the Cape of Good [Hope] by Mrs.Brant 1772.'

B 59 *Connochaetes gnou*: 'Bos gnu' and verso: 'Bos Equinus, Cape of Good Hope. Solander ms. has 'Bos equinus' with the annotation that the animal was seen in the Cape Menagerie in 1771: 'vivum in vivario Capensi visus 1771.'

B 60 *Papio ursinus*: (verso) 'Simius ursinus, Cape of Good Hope.' A baboon sitting on the ground and attached to a chain. Solander ms. has 'Simia ursina' without the remark that there would be a drawing. On the back of this drawing there is a pencil sketch of the antelope of f.46 (*Sylvicapra grimmia*).

8.5 THE THREE EXPEDITIONS

In the period between 1772 and 1775, Masson made 3 expeditions into the Cape interior. His published *Account* was not written from a geographical viewpoint. As Forbes (1965:39) put it, Masson 'sent expressly as a collector of botanical specimens, ... was under no obligation to record his route accurately.' It is therefore not known exactly where Masson went. In case of the second and third expeditions, there is the additional evidence found in the book by Thunberg, but he too was not in the first place interested in geographical localities. However, Masson only recorded few animals seen on his travels and we can have at least a reasonable idea where he saw them.

8.5.1 *First expedition*

This short journey lasting from 10 December 1773 to the end of January 1774 went from Cape Town via Stellenbosch to Swellendam and back. Masson was accompanied by Franz Pehr Oldenburg (1740-1774)[8] a Swedish soldier employed by the Dutch East India Co. who had special interest in botany. Masson (1776:276) called him a 'Dutchman.' Only three animals are mentioned in the description of this expedition in the published *Account* of 1776. Page references from Masson (1776) are given as '1776:...'.

1. near Perdeberg 33°40'S, 18°45'E
Raphicerus campestris, 'steenbok' were hunted [1776:269]

2. Soetemelksvlei 34°8'S, 19°45'E
Pelea capreolus, 'reebock' hunted without success [1776:270]
Crocuta crocuta, 'wolves' seen (1776:274).

8.5.2 *Second expedition*

This journey in eastward direction lasted from 11 September 1773 to 29 January 1774. Masson went together with C.P.Thunberg, whose remarks are given separately in 10.8. From Cape Town they travelled across the Zwartland to Saldanha Bay and St.Helena Bay. They continued through the Twenty-four Rivers region to the valley of the Olifants River, proceeding through the Cold and Warm Bokkeveld to Roodezand. They came to Swellendam on 5 November 1773. From there they went east crossing the Duiwehoks and Gourits Rivers to Mosselbay. After passing the Attaquaskloof Pass they travelled through the Langkloof to Humansdorp where they stayed with Jacob Kock. They crossed the Gamtoos and Van Staadens Rivers and reached the Sundays River, the easternmost point of the journey. The return trip followed roughly the same route except for two excursions on the Swartberg and into the Karroo.

3. Zwartland c.33°20'S, 18°25'E
Raphicerus campestris, 'steenbocken' (1776:277)

8. Some remarks about Oldenburg are found in Karsten 1939c:136 note and Gunn & Codd 1981:265.

Lepus sp., 'hares' (l.c.)
Francolinus sp., 'partridges' (l.c.)

4. 'Witte Klip', i.e. Witklip near Vredenburg 32°56'S, 17°58'E
Lycaon pictus, 'numbers of wild dogs, and some of them so near that I could discern them... to be about the size of a large fox-hound. They go in large packs, and do great damage to the cattle. They also destroy the antelopes wherever they go, by hunting them down in the same manner as our hounds do a stag' (1776:277).

5. St.Helena Bay c. 32°47'S, 18°E
Euplectes orix, 'the loxia orix of Linnaeus ... its body being a bright crimson, with black and grey wings' (1776:278).

6. Berg River 32°47'S, 18°10'E
Hippopotamus amphibius, 'still some of the sea horse, or hippopotamus amphibius ... but it is now prohibited to shoot any of them, as they are nearly destroyed for 800 miles from the Cape' (1776:278-279).

7. Koud Bokkeveld c. 32°30'S, 19°20'E
Antidorcas marsupialis, 'springbock' which gave the Bokkeveld its name. 'They are so shy, that we could not come within musket-shot of them' (1776:281,283).

8. Kafferkuils River 34°8'S, 21°16'E
Damaliscus dorcas, 'bonte bock, something larger than a fallow deer, very shy, but not very swift' (1776:287).

9. Outeniqua Mountains c. 33°50'S, 22°20'E
Syncerus caffer, 'wild buffaloes that are very fierce' (1776:289)
Loxodonta africana, 'some elephants' (l.c.)

10. Seacow River 34°S, 24°45'E
Hippopotamus amphibius, hippopotamus 'now almost extirpated' (1776:291)
Phoenicopterus ruber, 'numbers of the phenocopterus ruber' (l.c.)
Pelecanus onocrotalus, 'pelecanus onocrotalus' (l.c.)

11. Gamtoos River 33°50'S, 24°50'E
Loxodonta africana, 'elephants' (1776:293)
Syncerus caffer, 'buffaloes' (l.c.)
Panthera leo, 'lions' (l.c.), evidently not seen here, as the first lions were noted 5 days later, see (13).
Hippopotamus amphibius, in 'the deepest parts of the river' (l.c.)

12. area between Gamtoos and Van Staadens Rivers 33°55'S, 25°5'E
Alcelaphus buselaphus, 'numerous flocks of capra dorcas of Linnaeus' (1776:294)
Equus zebra, 'equus zebra' (l.c.)
Struthio camelus, the 'camelus struthio' (l.c.)

13. area near Port Elisabeth 33°55'S, 25°25'E
Syncerus caffer, 'buffalo numerous' (1776:296)
Panthera leo, 'we here saw two lions for the first time' (l.c.)

14. Zwartkops Salt Pan 33°47'S, 25°32'E
'several singular insects' like 'Gryllus and Cimex' (1776:297)
Equus quagga, 'in particular a variety of zebra, called by the hottentots Opeagha' (l.c.)
Loxodonta africana, elephant prints and dung (l.c.)
Panthera leo, lion prints (l.c.)

15. Lange Kloof near Swartberg 33°25'S, 23°5'E
Alcelaphus buselaphus, 'Capra dorcas' (1776:298)
Equus zebra, 'equus zebra' (l.c.)
Tragelaphus strepsiceros, 'koedoes' (l.c.)
Antidorcas marsupialis, 'springbocks' (l.c.)

8.5.3 *Third expedition*

Thunberg and Masson again joined forces in this expedition to the Roggeveld lasting from 29 September to 29 December 1774. The route was discussed by Karsten (1959a:181-184), Forbes (1965:40-42) and Gunn & Codd (1981:246-247). They travelled north past Paarl, Van Riebeecks Kasteel and Piketberg to the Olifants River near Vredendal. They turned east via the present Vanrhynsdorp, Niewoudtville to the Hantamsberg at Calvinia. They continued across the Roggeveldberge to Sutherland, then across the Tanqua Karroo southwards to Verkeerdevlei, Roodezand and back to Cape Town.

16. Piketberg 32°45'S, 18°45'E
Equus zebra, 'several zebra and two colts, but they were very shy' (1776:304)

17. Verloore Vlei 32°20'S, 18°25'E
Waterfowl were plentiful (1776:304)

18. near Olifants River 31°40'S, 18°30'E
Bathyergus suillus, 'Land-moll' making travel tiresome 'the mole-casts being so deep that the horses fell up to their shoulders every six or seven minutes' (1776:304).
Georychus capensis, 'bless-moll' (1776:305)
Panthera leo, 'lion prints' (l.c.).
Francolinus africanus and *F.capensis*, 'partridges of two kinds' (1776:306)
Coturnix coturnix, 'quails' (l.c.)
Lepus sp., 'their hares are of an extraordinary size, but differ little otherwise in character from those of Europe' (l.c.)

19. Bokkeveld [= 7]
Antidorcas marsupialis, country called after the 'springbock' of which sometimes 'flocks of many hundred thousands come out of the interior parts of Africa, spreading over the whole country. We saw several flocks, but not exceeding twenty in each' (1776:310)

20. Rhinoceros River (near Calvinia) 31°23'S, 19°50'E
Equus zebra, 'herds of zebra' (1776:312)
Panthera leo, 'large lion' but not seen (l.c.).

8.6 COLLECTIONS

Masson was an indefatigable and successful collector of plants and seeds. Karsten (1960) gave many details about the botanical specimens sent to England and their present fate. There was a large number of plants collected by Masson in the herbarium of Banks, some possibly obtained via the Royal Botanic Gardens of Kew (Stearn 1981:281). In a manuscript 'Florula Capensis' several Cape plants attributed to Masson present in the Banks Herbarium were listed (Diment & Wheeler 1984:467, no.21).

The collecting of animals was not included in Masson's orders, nor evidently in his interests. In his *Account* there is only one reference. Masson (1776:286) regretted the absence of any zoological reference books because he was unable, together with Thunberg, 'to settle one half of those which I collected on this journey.' Possibly he gave these animals to Thunberg when they returned to Cape Town. It appears, however, that Masson sent or took at least a small number of animal specimens to England. On a number of the drawings in the Banksian Library attributed to Masson (8.4), there is a note that a dried specimen was given to Sir John Pringle, i.e. *Georychus capensis*, *Francolinus afer*, *Pterocles namaqua* and *Rostratula benghalensis*. Such specimens probably went to Banks at some time or another, but there is no record about their present fate.

Among the manuscripts connected with Cook's journeys, there is a volume containing 4 lists, now preserved in the Zoology Library of the British Museum (Natural History), described by Diment & Wheeler (1984:475) under no.43 and referred to by Whitehead (1978a:33, catalogue E) and Medway (1979:316). The combined title of these 4 lists is:

4 MS. Catalogues of the Birds in the drawings of J.G.A.Forster, & W.W.Ellis [& J.Webber] from Capt.J.Cook's second Voyage, 1772-1775, and third voyage 1776-80 (46 folios, 32 cm).

The manuscript was written in the hand of Jonas Dryander. The

title of the set is confusing as it is clearly a list of bird skins in the collection of Banks from his journey to Newfoundland and Labrador in 1766, from Cook's voyages, as well as from Masson's journeys (Diment & Wheeler 1984:475). I shall only mention the latter. All specimens listed below are identified in the manuscript as originating from 'Masson', sometimes just 'M' with the locality 'P.B.s' (Promontorium bonae Spei). All species were represented by only one specimen.

The four lists (43a-d in Diment & Wheeler) are partial duplicates and the entries below are discussed together. I followed the number of Diment & Wheeler (1984) in identifying the lists 1 to 4. The serial numbering of the species is mine and has no equivalent in the manuscript. Some species can be identified, but others are described inadequately to do this with any amount of certainty.

1 'Corvus atro coerulescens subtus albo nebulosus, cauda forficata' [Corvus, dark blue, underneath broken white, with forked tail] List 2, p.2, no.27.
2 'Cuculus cauda cuneiformi, corpore virescente, atro macula alarum alba' [Cuculus, with cuneiform tail, greenish body, white wings with dark spots] List 2, p.2, no.30 = ? *Chrysococcyx caprius*.
3 'Picus fuscus pallido punctatus, pectore, uropygioque sanguineus' [Picus, dark brown with lighter spots, the breast and uropygium reddish] List 1, p.3, no.33, List 2, p.2 no.33 = ? *Lybius torquatus*.
4 'Alcedo, macr.supra nigro et albo variegata, subtus alba, collari nigro, an.var.rudis?' [Alcedo, large, above white and black mixed, below white with black collar] List 2, p.3 no.38 and List 3, p.4 no.38 = ? *Ceryle rudis*.
5 'Alcedo cristata L.' - List 1, p.4 no.39 = *Alcedo cristata*. A drawing of this species, 'Kingfisher of the Cape. Cape of Good Hope' by J.Webber was also in the collection of Banks (Lysaght 1959:342, Medway 1979:322).
6 'Alcedo apiaster L.' - List 2, p.3 no.43 and List 1, p.4 no.43 = *Merops apiaster*.
7 'Alcedo cafra L. et Upupa promerops L.' - List 2, p.3 no.44 and List 1, p.4 no.44. = *Promerops cafer*. There is a watercolour of this species from the collection of Banks labelled 'Cape of Good Hope' and drawn by W.Ellis in the BMNH Zoology library (Lysaght 1959:326, Medway 1979:322).
8 'Upupa epops L.' - List 1, p.4 no.47 = *Upupa epops*.
9 'Certhia famosa L.' - List 2, p.3 no.48 and List 1, p.5 no.48 = *Nectarinia famosa*.
10 'Certhia afra L.' - List 2, p.3 no.49 and List 1, p.5 no.49 = *Nectarinia afra*.
11 'Certhia capensis L.' - List 2, p.3 no.50 and List 3, p.5 no.50. = Not identified.
12 'Scolopax afra rostro recto, corpore nigro supra flavo lineatus subtus, albo undulato, ventro candido' (Scolopax afra, with straight bill, body black above, yellow lined below with white stripes, white belly) List 2, p.9 no.102 and List 1, p.9 no.102. = *Calidris ferruginea*.
13 'Scolopax capensis L.' - List 2, p.9 no.103 and List 1, p.10 no.103 = *Rostratula benghalensis* shown on Masson drawing B 44.
14 'Otis afra L.' (2 specimens) List 1, p.11 no.129 = *Eupodotis afra*.
15 'Charadrius' - List 2, p.10 no.116 = Not identified.
16 'Charadrius annulatus L.' - List 2, p.10 no.117 = Not identified.
17 'Rallus scolopaceus' - List 1, p.12 no.134 = Not identified.
18 'Sturnus passerina' - List 1, p.13 no.145 = *Sphenoeacus afer*.
19 'Loxia capensis' -List 1, p.14 no.155 = *Euplectes capensis*.
20 'Emberiza striata' - List 1, p.14 no.161 = *Emberiza capensis*.
21 'Motacilla sibilla' - List 1, p.15 no.176 = Not identified.
22 'Pipra olivacea' - List 1, p.15 no.177 = Not identified.
23 'Parus vittatus' - List 1, p.16 no.179 = Not identified.
24 'Lanius cauda rotundata, dorso infimo albo maculato, ab domine rufescente' [Lanius with rounded tail, lower back spotted white, from the top reddish] List 3, p.1 no.7 = Not identified.

CHAPTER 9

Anders Sparrman

9.1 BACKGROUND

Anders Sparrman was among the most important investigators of the South African fauna in the second half of the 18th century. There were few other early travellers with his interest and competence in zoology. Moreover, Sparrman was a student of Linnaeus and followed the binominal system of nomenclature consistently in all his writings. He was the first to propose names for some common mammals like the buffalo *Syncerus caffer* and the southern bushbok *Tragelaphus scriptus sylvaticus*.

It is a happy coincidence that Sparrman published his results. Most of his papers and correspondence have been lost and there is not the slightest clue where they might be.[1] They are not preserved, apparently, in the larger depositories in Uppsala and Stockholm. Some of his letters written to Thunberg, Forster and Linnaeus are still known. These give us some interesting glimpses of Sparrman's activities and aspirations, but they leave many questions about his life unanswered. A full biography is still very much required. The primary source for the evaluation of Sparrman's zoological work at the Cape of Good Hope is therefore his own published work. This is epitomised in his *Resa* (or *Voyage*), of which the first part appeared, in Swedish, in 1783. Translations into other languages soon followed. A new English edition with an historical introduction and extensive footnotes was recently prepared by V.S.Forbes (1975, 1977) and this has made the book much more accessible than was the case previously.

9.2 BIOGRAPHY

Anders Sparrman (1748-1820) was born on 27 February 1748 in Tensta (Uppland, Sweden), son of Eric Sparrman and Brita Högbom.[2] His father was dean in the local church. The young Sparrman enrolled in the University of Uppsala in 1757 and started his courses in medicine in 1762. Linnaeus was one of his teachers and Thunberg was an older fellow student. From 28 December 1765 to August 1767, he had a chance to travel to China with Capt. Carl Gustaf Ekeberg (1716-1784). Not much is known about his activities during that long trip, but after his return he presented an 'Iter in Chinam' as dissertation to Linnaeus. Two years later, in 1770, he finished his medical studies. About the same time, Ekeberg was at the Cape of Good Hope on one of his many journeys, and he was able to get a permit from the Dutch authorities to send a botanical investigator. Linnaeus was quite happy with this possibility and he quickly arranged the passage of Sparrman on a ship of the Swedish East India Company.

Sparrman left Sweden (Göteborg) on 10 January 1772 on board the *Stockholms Slott*, arriving in Table Bay on 12 April 1772. He first stayed about one year at the Cape of Good Hope tutoring the children of J.F.Kirsten[3] to make a living, while using his spare time to collect plants and insects. The details about the time he spent at the Cape are given below (9.7) mainly following his own account published in 1783. In November 1772, he was suddenly given a chance to accompany the two Forsters on their journey of exploration with Capt.James Cook. Sparrman almost jumped at the opportunity, because he obviously was far from happy with the possibilities offered at the Cape. Unexpectedly, therefore, he could take part in that famous journey. Summarizing some remarks in Cook's writings, Beaglehole (1969,II:xlix) gave an impression of Sparrman during the voyage: '... clever and steady, a little prim, a little upset by swearing, an ardent collector, interested in food and drink and in the habits of sailors, not at all a controversial figure.' Sparrman's relation with both J.R.Forster and his son George was quite friendly, or in the words of Hoare (1982,I:78) they 'enjoyed a healthy mutual professional and fraternal respect for each other, even though the Swede possessed a quite realistic idea of the elder Forster's financial extravagances and less winsome character traits.' After the journey, Sparrman continued to write regularly to George Forster and 12 letters before 1780 are known. He also remained in contact with the elder Forster, but that correspondence is largely lost.[4] George Forster dedicated his *Florulae insularum australium prodromus* (Halle, 1786) to Sparrman.

Sparrman returned to the Cape of Good Hope on Cook's ship on 21 March 1775 and remained there until 11 May 1776. During this period he no longer had need to work for his living. He could even finance his own expedition to the eastern Cape, vividly described in his book of 1783. After his return to Europe on the *Stockholms Slott* in 1776, he stayed in England for a short

1. The Landsarkivet in Ostersund, Sweden, has papers pertaining to the Sparrman family occupied in mining in the country of Jämtland. There is nothing, however, about the affairs of Anders Sparrman (Dr Kjell Hoffman, archivist, in litt. 10.8.1984).

2. A full biography of Sparrman is still much desired. The main events can be seen in Forbes (1965:46, 1975:13-15, 22-23) and Karsten (1957a). Small or general notes are provided (in alphabetical order) by Anonymous 1820, Anderson 1960:290-294, Andersson 1915, de Bouveignes 1953, Brinck 1955:15-17, Colvin 1912:281-310, Danielsson 1969:4-14, Eloff & Labuschagne 1961:6-8, Eybers 1925:15-31, Grut 1974, Gunn & Codd 1981:330-331, Kock 1904:40-116, Kroepelien 1939:6-13, Löwegren 1952:365, Lundevall 1975, MacOwen 1886: xxxvii, Mellin 1848:18-46, Norlindh 1969:228, Selander 1960:71-80, Söderström 1939:12-14, Thunberg 1811d:3, Wahlström 1848, Wallström 1983:108-112.

3. Johan Frederik Kirsten from Germany arrived at the Cape in 1740 as an army soldier. In 1761 he became Postholder in Simon's Town, in 1769 'postholder or resident.' He died in 1783 (Forbes 1977a:51 note.)

4. Only one letter written by Sparrman to J.R.Forster is still known, dated 8 September 1796, kept in the Zentrales Archiv der Akademie der Wissenschaften der D.D.R., Berlin (see Hoare 1982,I:78 no.4). Another letter by Sparrman to Forster was printed as Sparrman (1777a).

period and was back in Sweden in August 1776. He had already received the degree of Doctor of Medicine from the University of Uppsala while absent at the Cape. At first he was much occupied with the sorting of his collections of animals, plants and ethnographical objects. During that time he stayed with Baron Charles De Geer (1720-1778). He apparently received little recognition for his contributions to these journeys of exploration. However, he was honoured in 1776 when he was elected a member of the Swedish Academy of Sciences (KVA). He served as its president twice, in 1778 and 1785.

On 9 February 1780, Sparrman was appointed as curator ('demonstrator') of the museum or cabinet of natural history of the Academy, which post he held until 1798. Besides, he became professor of medicine on 29 October 1781.

In 1787, he undertook a last intercontinental voyage, together with C.A.Arrhenius and C.B.Wadström, this time to Senegal to look for suitable land for Swedish settlers. On the way back he used the opportunity to visit Paris and London returning to Stockholm in June 1788. His position at the KVA museum was temporarily filled by C.F.Hornstedt (5.83).

The later years of Sparrman can be summarized, both because little is known and because his activities did not concern zoology. On 18 November 1790 he became professor of natural history and medicine at Stockholm's Royal Collegium Medicum. When this institution was abolished in 1813, Sparrman went to work as doctor in Klara parish, Stockholm. He died on 9 August 1820, unmarried, buried in an unknown grave.

Sparrman showed himself a likeable and competent person during the years of his main travels and the direct aftermath. He was active, and published his results quickly and accurately. He must have enjoyed at least a little fame. In the last years of the 18th century he was still a man of some standing in scientific circles. This quickly disintegrated. Maybe he was troubled by a lack of money, probably he had a bad sickness?[5] During his last twenty years there are no important feats, nothing remarkable. Apparently his life ended in misery and in bankruptcy, and his possessions, auctioned after his death, could not cover his debts (Löwegren 1952:365). Still, Sparrman should always be remembered for his early contributions to zoology of Southern Africa, which constituted a remarkable achievement.

9.3 BIBLIOGRAPHY

The books and major publications by Sparrman were recently listed by Forbes (1975:20-21) partly following earlier bibliographies. I attempt here to provide details about all Sparrman's published work (49 items) with a short indication of their contents. Possibly, according to Müller (1977:308), Sparrman assisted in the production of George Forster's *Characteres generum plantarum* and *Florulae insularum australium prodromus*. Many short papers appeared in the *Handlingar* of the Swedish Academy of Sciences (KVA), Stockholm. This journal was translated into German as *Kg.Swedischen Akademie der Wissenschaften, Abhandlungen*; continued as *Neue Abhandlungen*. These translations appeared a few years later than the Swedish original, and are identified where necessary in the main bibliography of the present work.

5. Anonymous (1820) said that Sparrman died after a long sickness.

1768 Dissertatio Academica sistens Iter in Chinam.
– The president was Carl Linnaeus. Published separately on 30 November, reprinted by Linnaeus, *Amoenitates Academicae*, vol.7: 497-506 (1769 and 1789), cf. Soulsby (1933), nos. 1311 and 2393.

1773 Bref i utdrag ... till utgifvaren af dessa tidnigar, dat. Cap.b.Spei den 22 Nov.1772. *Tidnigar utgifne i Upsala*, no.42, 25 oct 1773, pp.329-332 (not seen, cf. Forbes 1975:20).

1776 Beskrifning på Sarcophyta sanguinea, en förr öbekant parasitisk ört från Södra Africa. *KVA Handlingar*, 37: 300-302.
– Description of *Sarcophyta sanguinea* from 'Bruntjeshoogte.'

1777 An account of a journey into Africa from the Cape of Good-Hope, and a description of a new species of cuckow. *Philosophical Transactions of the Royal Society of London*, 67: 38-47, pl.1.
– Includes the description of *Cuculus* [= *Indicator*] *indicator*. The same text is found in 1783:591-597 where the generic name is spelled *Cucculus*, and 1977:146-150 (with an English translation of the Latin description on p.150).

1777 Försök med saltsjo-vätten, uphämtadt ifrån större djup, til besparing af färskt vatten. *KVA Handlingar*, 38:21-25.

1777 Beskrifning på en ny växt, en species af Protea ifrån Caput Bonae Spei. *KVA Handlingar*, 38:53-56.
– Description of *Protea sceptrum-gustavianum*. There is a shorter note about this plant in 1975, I:139.

1777 Beskrifning på Viverra Ratel, et nytt djur från Caput Bonae Spei. *KVA Handlingar*, 38:147-150, pl.IV.
– Description of *Mellivora capensis*; same text in 1783:584-588, 1977:142-144.

1777 Beskrifning på Cimex paradoxus, en ny insect från Caput Bonae Spei. *KVA Handlingar*, 38:234-238.
– Description of *Pephricus paradoxus*. It is mentioned only in 1783:406-407, 1977:24.

1778 Om flug-maskar, utdrefne ifrån en människa. KVA Handlingar, 39:65-70.

1778 Tilläggning om Yerbua Capensis. *KVA Handlingar*, 39:119-120.
– A few notes on *Pedetes capensis*, different from the remarks in 1783:600, 1977:152-153.

1778 Beskrifning om Rhinoceros bicornis. *KVA Handlingar*, 39:303-313, pl.IX.
– Describes *Diceros bicornis*, similar to (but in slightly different words) 1783:496-512, 1977:80-90.

1778 Beskrifning på Hippopotamus amphibius, särdeles på en lefvande fången unge af den samma med bifogad ritning. *KVA Handlingar*, 39:329-334, pl.X.
– Describes the hippopotamus, shorter than the account in 1783:694-702, 1977:212-220.

1778 Beskrifning på Sciurus bicolor, et nytt species ikorn, från Java. *Götheborgska wetenskaps och witterhets samhällets Handlingar*, I:70-71.
– First description of *Ratufa bicolor* from a specimen sent by Mr Staaf from Java.

1778 Beskrifning och berättelse om Lacerta Geitje, en obekant och giftig ödla ifrån Goda Hopps Udden. *Götheborgska wetenskaps och witterhets samhällets Handlingar*, I:75-78, pl.5.
– First description of a lizard, *Pachydactylus geitje* different from 1783:746-748, 1977:251-252.

1778 Om dubbel strömsettning i hafvet. *Götheborgska wetenskaps och witterhets samhällets Handlingar*, I:99-103.

1778 Om öars tilkomst. *Göteborgska wetenskaps och witterhets samhällets Handlingar*, I:103-105.

1778 Tal, om den tilväxt och nytta, som vetenskaperne i allmänhet, särdeles Natural-historien, redan vunnit och ytterligare kunna vinna, genom undersökningar i södar-hafvet: hållet för Kongl. Vetenskaps-Academien, vid Praesidii nedläggande, den 31 Octob. 1778. Stockholm, Johann Georg Lange. 35 pp. 8vo.
– An English translation was published by Danielsson (1969:21-32) as 'Lecture, on the augmentation and advantages which science in general, and natural history in particular, have acquired, and are further likely to acquire, from exploring the Pacific

ocean.'

1779 Description de l'organe de génération du rhinocéros à deux cornes. *Acta Academiae scientiarum imperialis Petropolitanae*, 1779 (pars prior): 64-65, pl.I.
– Description and figure of penis of *Diceros bicornis*, with words different from 1783:512-514, 1977:90-91.

1779 Om djuret t'Gnu, et slags gazelle eller antilope, från Caput Bonae Spei. *KVA Handlingar*, 40:75-79, pl.III.
– Describes *Connochaetes gnou*, repeated in 1783:532-536, 1977:102-104.

1779 Bos caffer, et nytt species af buffel, från Caput Bonae Spei. *KVA Handlingar*, 40:79-84, pl.IIIb.
– Describes *Syncerus caffer*, in words different from 1783:455-463, 1977:55-59.

1779 Hartebeesten eller Dorcas, et djur af gazelle-slägtet, från Goda Hopps Udden. *KVA Handlingar*, 40:151-155, pl.Va.
– Describes *Alcelaphus buselaphus*, repeated in 1783:604-610, 1977:155-158.

1779 Eland eller Capske Elgen, en sort gazelle: afritad och beskrifven. *KVA Handlingar*, 40:155-157, pl.Vb.
– Describes *Taurotragus oryx*, repeated in 1783:612-618, 1977:159-162.

1779 Et nytt genus i växt-riket uptäckt och kalladt Ekebergia capensis. *KVA Handlingar*, 40:282-284.
– Describes a new plant *Ekebergia capensis*, only mentioned in 1783:325, 1975:286.

1780 Tres novae plantae descriptae. *Nova Acta Societatis scientiarum Upsaliensis*, 3:190-195.
– Describes *Cleome juncea* from South Africa, mentioned 1783:404, 1977:22; *Lepidium oleraceum* from Sweden, and *Mimosa simplex* from Tanna Island, New Hebrides.

1780 Antilope sylvatica, et aldeles nytt djur, af gazelle-slägtet, från Goda Hopps Udden, med beskrifning och ritning. *KVA Nya Handlingar*, I:197-203, pl.VII.
– First description of *Tragelaphus scriptus sylvaticus*, repeated in 1783:282-290, 1975:254-258.

1780 Luftspringare gazellen, af colonisterna springbock kalled, ifrån södraste delen af Africa. *KVA Nya Handlingar*, I:275-281, pl.IX.
– Describes *Antidorcas marsupialis*, repeated in 1783:480-489, 1977:70-76.

1781 Professor Georg Forsters strödde underrättelser om Capitaine Cooks sista resa och dlycheliga död i söderhafvet, öfwersättning utur Göthingische Magazin. Siderholm, P.A.Brodin. 47 pp, 1 map, 8vo.
– See Forbes 1975:21. Includes a summary of Sparrman's travels at the Cape of Good Hope, pp.41-46.

1783 Resa till Goda-Hopps-Udden, södra Pol-Kretsen och omkring jordklotet, samt till Hottentott- och Caffer-Landen, åren 1772-76. Volume I, pp. i-xv, 1-766, pls. 1-9, 1 map. 8vo. Stockholm, Anders J.Nordström.
– Further noted below, 9.4.

1784 Lacerta sputator, och Lacerta bimaculata, tua nya ödlor från America; beskrifne. *KVA Nya Handlingar*, 5:164-167.
– An inclusive title including the next item.

1784 Lacerta bimaculata, en ny ödla från America. *KVA Nya Handlingar*, 5:169-171.

1784 Mus pumilio, en ny ratta från det södra af Africa, uptäkt och beskrifven. *KVA Nya Handlingar*, 5:236-237, pl.VI.
– First description of *Rhabdomys pumilio*, not in the *Resa* of 1783, but added to the 1785 English translation (1977:262-263).

1785 Fyratio, til större delen obekante Curculioner, fran Goda Hopps-Udden, beskrifne, jämte några anmärkningar vid samma insect-slägtet. *KVA Nya Handlingar*, 6:37-57.
– Mentioned insect genera *Attelabus* and *Curculio*, the latter with descriptions of 40 species.

1785 Praesidii-tal i K.Vet.Academien om Natural-Cabinettens nytta och nödvändighet. Stockholm. 8vo.
(Not seen, cf. Anonymous 1820:396).

1786 Beytrag zur Naturgeschichte der Hottentotten. *Magazin für das Neueste aus der Physik und Naturgeschichte*, Gotha, 4(1):25-32.
– Possibly compiled and translated from the *Resa* of 1783 or its German edition of 1784. A few notes about this paper are given by Rookmaaker 1985c.

1786 Zoologiska anmärkningar vid Viverra genetta och Oriolus galbula. *KVA Nya Handlingar*, 7:67-73.
– Describes *Viverra genetta*, without locality and *Oriolus galbula*, from Finland.

1786–1789 Museum Carlsonianum, in quo novas et selectas Aves, coloribus ad vivum brevique descriptione illustratas, suasu et sumtibus generossimi possessioris. Holmiae, Typographia Regia.
– Published in 4 parts, one every year, each consisting of 25 birds descriptions and plates. Further described in 9.5.

1787 Bref dat.Gorée d. 20 Nov.1787. *Allm.Tidning*, 1788, no.18.
– Not seen, see Anonymous 1820:397. Like the next two items.

1789 Kungörelse af Sällskapet i London till befordran af upptäckter i de inre delar af Afrika. *Allm.Tidning*, 1789, del.1, no.23-24.

1791 Riddar Bienenbergs sätt att preservera frukträd för frost. *Inr.Tidning*, 1791, no.43.

1791 Åminnelse-tal öfver framledne Capitainen vid kongl.Admiralitetet samt riddaren af Kongl.Wasa Orden Herr Carl Gust.Ekeberg, hållet för Kongl.Vetenskaps Academien den 1 December 1790. Stockholm, Johann A.Carlbohm. 44 pp. 8vo.

1795 Coluber ferrugineus, en aldeles ny hugg-orm, funnen i Södermanland och beskrifven. *KVA Nya Handlingar*, 16:180-183.

1795 En grönflacked groda, funnen i Carlscrona och beskrifven. *KVA Nya Handlingar*, 16:183-185.

1797 Utvalda allmänt nyttiga och merendels nyare Rön och samlingar i medicin, pharmacie, chemie, naturkunnighet, landhushållning, handel och slögder, jämte utdrag af nöjsamare ämnen i naturalhistorie, verlds-och resebeskrifningar. Stockholm, Kumbliska Tryckeriet. xvi, 224 pp.
– A volume edited by Sparrman with different short papers by several authors. It included a review of Levaillant's journey at the Cape 1783-1785 (pp.220-222). A further two volumes appeared in 1800 and 1801 under another title.

1798 Bucco atro-flavus: et nytt fogel species ifran Sierra Liona, beskrifvet. *KVA Nya Handlingar*, 19:305-307.
– First description of *Pogoniulus atroflavus* of West Africa.

1800–1801 En upptächts-resa till norra stilla hafvet och kring jordklotet, att på Kongl. Engelsk befallning och omkostnad i synner het forska efter något segelbart sammanhang imellan norra stilla och norra atlantiska haven, förättad åhren 1790, 1791, 1792, 1793, 1794, 1795, under commando af George Vancouver; ifrån engelskan i sammandrag utgifven. Stockholm, Anders Zetterberg. 2 volumes.
– Contains a translation of George Vancouver's voyage of discovery to the North Pacific ocean, and Round the world, 1798. Anonymous (1820) gave the date of the second volume as 1820.

1802 Resa till Goda Hopps-Udden ... volume 2: Resa omkring jordklotet i sällskap med Kapit.J.Cook och Hrr Forster åren 1772, 73, 74 och 1775. Första adelningen. Stockholm, Carl Delen. xii, 180 pp. 8vo.

1805–1816 Svensk Ornithologie. Stockholm. 44 pp, 60 pls.

1806 Rön och anmärkningar om fluge-mask eller fluge-larver som inästlassig i lefvarde människors innanmäten, jämte aftekningar på okände species deraf. *KVA Nya Handlingar*, 27:239-248.

1818 Resa till Goda Hopps-Udden ... volume 2 part 2: Resa omkring jordklotet i sällskap med Kapit.J.Cook och Hrr Forster åren 1772, 73, 74 och 1775. Abdra Afdelningen. Stockholm, Carl Delen. 1, 238 pp. 8vo.

9.4 THE PUBLICATION OF THE 'RESA'

Soon after his return to Sweden, Sparrman started to publish his results. Apparently he first worked on the larger mammals as his descriptions of them appeared in short papers from 1777 on-

wards. Some small glimpses about his intentions for a more comprehensive work are found in his letters to George Forster, although these stop in 1780. On 7 August 1776, while still in Gothenburg, Sparrman stated to have kept 'a journal of every day precicely ... but my journal is in short hand and requires time to enlarge and put it in order.' A month later, on 15 September 1776, he had made up his mind to exclude descriptions of plants (leaving those for Thunberg, one wonders?), but he was curious about his rewards: 'What do you think the Booksellers would pay for a little History of my Travels?' He began to write anyway, as he said on 12 September 1777: 'As for my Cape journal, I have been working at it, and intend to publish the first part of it' hoping to include some criticisms of Buffon, a few anatomical studies, several plates and a complete geographical map, and maybe 'a short description of my insects? if you think it proper, otherwise the herbs and Birds will be very little mentioned' (quotations from Leuschner et al. 1982:22,28,50-51). In the end the Swedish edition of the Cape travels was ready in 1783. The account of the Pacific journey, however, was delayed until 1802 and 1818, possibly to make very sure that he would not publish before the Forsters had had a first chance. This second volume in two parts about the journey with Cook has been dealt with by Robinson (1946) and Forbes (1975:15). A French translation was prepared in 1939, and an English one in 1944.[6]

The bibliography of Sparrman's South African travels was discussed by Robinson (1946), while Kennedy (1976,II) listed and illustrated the plates. A few details may suffice here.

The title and pagination of the first volume published in Stockholm in 1783 in the Swedish language have been given above (9.3). There are 9 plates and a map:

Pl. I has 2 figures: (a) above 'Hartebeest' and (b) 'Eland'. It shows *Alcelaphus buselaphus* and *Taurotragus oryx*. The same plate appeared in *KVA Handlingar* 40 (1779).

Pl. II has 2 figures: (a) above 't'Gnu' and (b) 'Buffel' showing *Connochaetes gnou* and *Syncerus caffer*. It appeared earlier in *KVA Handlingar* 40 (1779).

Pl. III shows a 'Boschbock', *Tragelaphus scriptus sylvaticus*. It had appeared before in *KVA Nya Handlingar* 1 (1780).

Pl. IV shows a springbok *Antidorcas marsupialis*, but there is no inscription on the plate. It had appeared in *KVA Nya Handlingar* 1 (1780).

Pl. V has 2 figures: (a) above, the skull, and (b) a side view of the body of 'Rhinoceros bicornis' or *Diceros bicornis*. It appeared before in *KVA Handlingar* 39 (1778).

Pl. VI shows 'Hippopotamus amphibius' and appeared earlier in *KVA Handlingar* 39 (1778).

Pl. VII shows six numbered figures of hottentot ornaments, without text.

Pl. VIII has 9 numbered figures of hottentot weapons without text.

Pl. [IX] is a landscape, without text, with a hottentot village on the left and people hunting some antelopes in the background.

The plates are followed by a map 'Mappa geographica Promontorii Bonae Spei ...' It was issued separately in 1779. Forbes (1965, 1975:9-11) discussed the details.

The Swedish edition of the *Resa* was reprinted in facsimile in 1968 (Stockholm, Rediviva). All my references to the Swedish edition are taken from this recent reprint.

German edition

The first translation, into German, appeared in 1784:

Reisen nach dem Vorgebirge der guten Hoffnung, den südlichen Polarländern und um die Welt, hauptsächlich aber in den Ländern der Hottentotten und Kaffern in den Jahren 1772 bis 1776. Berlin, Haude und Spener, pp. [i-xxx], 1-624.

It was translated by Christian Heinrich Groskurd, and George Forster contributed an introduction (signed October 1783) and some footnotes (Fiedler 1971:35). There are 14 plates numbered I-XIV. The captions are rather longer than in the Swedish original. The plates are similar, but unlike the original, all plates have only one figure. One plate is added:

Pl. XIV 'Hippopotamus amphibius, Linn. Zeekoe, Belgis ad C.B.S. Flußpferd, S.pag 562 u.f. Nach einer von Hr Dr u Pr J.R.Forster mitgetheilten Zeichnung.'

Because no other zoological drawings attributable to J.R.Forster are known, it was probably made by his son George.

Dutch edition

This was prepared using the German edition of 1784. The translator is not named. It appeared in 1787:

Reize naar de Kaap de Goede Hoop, de landen van den zuidpool, en rondom de waereld; doch voornaamlijk in de landen der Hottentotten en Kafferen; in de jaaren 1772 tot 1776. Leyden, Sam. en Joh. Luchtmans en Amsterdam, M.de Bruijn. Volume I, pp. [1-3], i-lvi, 1-386; vol.II, pp. [1-5], 391-796, 1-63, [i-ii].

There are 14 plates similar to the German edition including the extra illustration of the hippopotamus.

English editions

There were four English editions (Robinson 1946:44-45, Forbes 1975:11-13). The first translation came in 1785:

A voyage to the Cape of Good Hope, towards the Antarctic polar circle, and round the world, but chiefly into the country of the Hottentots and Caffres, from the year 1772, to 1776. London, G.G.J. and J.Robinson. Vol.I, pp. xxviii, 1-368; vol.II, pp. i-viii, 1-347, [348-354]

The translation from the Swedish was made by Charles Rivington Hopson (1744-1796) as found by Forbes (1977a:3-5). There were 10 plates similar to those in the original Swedish, but all in reverse. Two plates were added.

Pl. 6 in vol.II. The lower figure is the 'wood-goat' shown on 1783, pl. III; the upper figure shows a 'Viverra Ratel' (*Mellivora capensis*) copied from *KVA Handlingar* 38 (1777).

Pl. 7 in vol.II has 2 figures: (a) 'Dwarf-Mice: the natural size' and (b) 'Leaf insects'. The mice *Rhabdomys pumilio* are copied from *KVA Nya Handlingar* 5 (1784), the insects *Cimex paradoxus* from *KVA Handlingar* 38 (1777).

The second English edition came from the same publishers in 1786 and is stated to be 'the second edition, corrected' in 2 volumes. The same text was also copied for one published in Dublin, for Messrs. White, Cash, and Byrne, 1785, 2 volumes. There was a fourth edition which appeared in Perth, for R.Morison and son; Edinburgh, G.Mudie and London, J.Lachington, 1789, 2 volumes 12mo.

A recent reprint followed the text of the first 1785 translation with corrections made after comparison with the original Swedish by J. and I.Rudner. It was prepared by V.S.Forbes who

6. The French translation of Sparrman's Pacific journey was prepared by Terieroo Bjarne Kroepelien in 1939 ('Un compagnon suédois du capitaine James Cook au cours de son deuxième voyage'. Oslo, La coquille qui chante, pp.1-91, 2 pls.). An English translation appeared in 1944 published in London, Golden Cockerel Press (reprinted London, Robert Hale 1953).

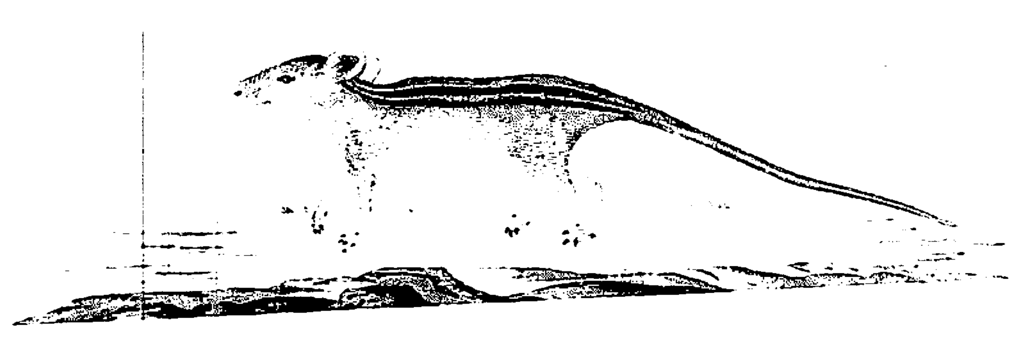


Fig. 81 Gordon Atlas (GA 220): Striped mouse *(Rhabdomys pumilio)*.

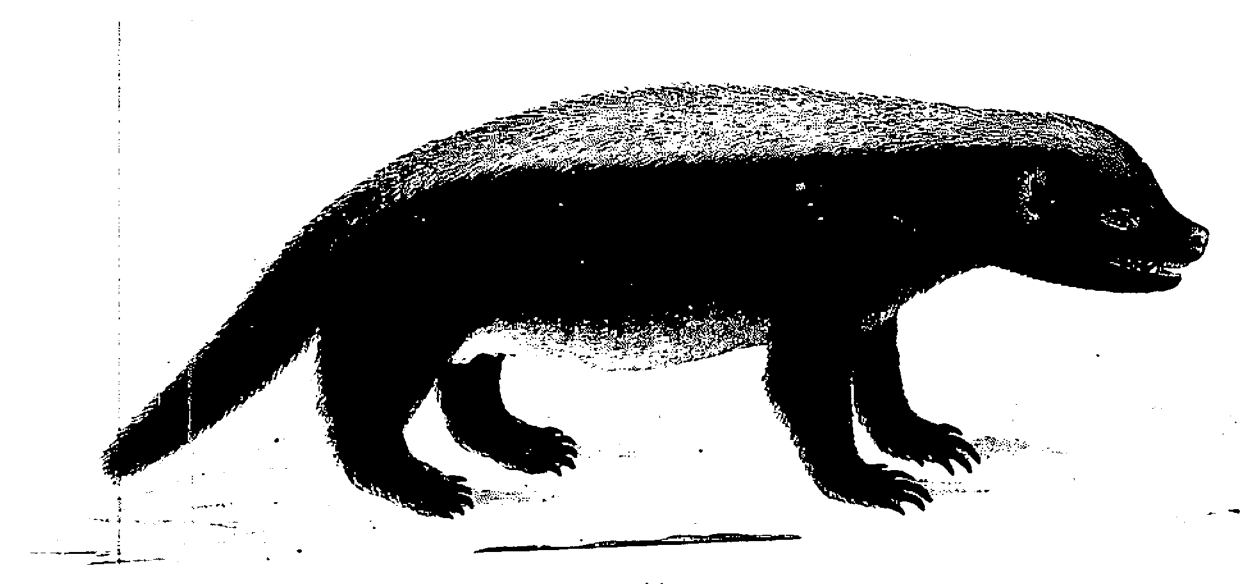


Fig. 82 Gordon Atlas (GA 147): Honey badger *(Mellivora capensis)*.

contributed a foreword in both volumes and a large number of explanatory footnotes (cf. Forbes 1978). It appeared in two volumes in the series of works for the Van Riebeeck Society, Cape Town in 1975 and 1977. In page references I have used this edition as it is easily available.

French editions

There were at least three different French editions all published in 1787, with the same title:

Voyage au Cap de Bonne Espérance, et autour du monde avec le Capitaine Cook, et principalement dans le pays des Hottentots et des Caffres.

1 Paris, Buisson. 3 volumes, 8vo.
2 Paris, Buisson. 2 volumes, 4to.
3 Paris, 3 volumes, 8vo. Probably pirated.

Robinson (1946:46-48) gave further details. The translation was by Le Tourneur. The text has two extensive additions:

In vol.2 (8vo) pp.103-180; or vol.1 (4to), pp.397-463 'Relation sur les termites, par M.Smeatman' taken from a paper by Smeathman (1781) in the *Philosophical Transactions* of 1781 (French 1786). Four plates illustrating this paper are also added in the work by Sparrman, as pls. I-IV in the 8vo and pls. III-VI in the 4to editions (Kennedy 1976 II:S387-390).

In vol.3 (8vo) pp.275-340; or vol.2 (4to) pp.378-434 'Extrait de l'article Caffrerie, du nouveau système de géographie de Middleton' being a translation of C.T.Middleton's *A new and complete system of geography* (London, 1778).

Except the four plates of termites, two others are added here for the first time, either in vol.3 (8vo) or vol.2 (4to). In the 8vo edition they are numbered IV and V. I follow the 4to edition.

Pl. VII 'Le zerda' illustrating *Vulpes zerda* (Zimmermann, 1780). I cannot find why this plate was included or its source. The fennec does not occur in southern Africa (cf. de Bouveignes 1953).

Pl. VIII 'Yerbua ou gerboise du Cap' taken from the plate published by J.R.Forster (1778) showing *Pedetes capensis*. The detail of the teeth here appears in the left upper corner rather than below the animal as in 1778.

There may have been another French edition of 1786 translated by J.P.Brissot (Robinson 1946:46, Forbes 1977a:5) It is recorded by Rochedieu (1948:310): 'Voyage au Cap de Bonne Espérance, au pôle meridional, pendant les années 1772-1776, traduit de l'anglais par J.P.Brissot. Londres et Paris, 1786. 2 vols. in-8'. The place of publication and size differ from the edition recorded by Robinson (1946).

9.5 THE MUSEUM CARLSONIANUM

In this book Sparrman described and illustrated 100 birds from the collection of Johann Gustav von Carlsson (1743-1801), president of the Vasa court. This rich gentleman had some of the birds in his collection drawn by Carl Linnerhielm and he asked

Sparrman to write the explanatory text. The drawings were engraved by Frederik Akrel (1748-1804) and handcoloured by Linnerhielm (Levitt 1981:37). The book appeared in 4 installments of 25 birds each. A fifth installment of 20 plates presumably was printed, but it never came on the market (Von Friesen 1860:10, Lenström 1841:117, Nissen 1953:169). Every bird is described in Latin followed by a coloured plate. Some of the specimens illustrated could have been donated to Carlsson by Sparrman from the collection with which he returned from South Africa and the Pacific. Although this is nowhere explicitly stated, Sparrman possibly contributed the birds of plates 18, 33, 47 and 61. Sundevall (1857:3-15) discussed all the species mentioned in this volume. Below only those birds said to occur in South Africa are listed.

Carlsson's collection was dispersed around 1800. In 1801, some 100 birds went to the Kg. Vetenskaps Akademien in Stockholm and later from there to the Naturhistoriska Riksmuseet in the same place. Gyldenstolpe (1927) listed 25 type specimens of birds described in the *Museum Carlsonianum* still extant at that time. The Uppsala University bought 185 specimens (176 species) about the year 1801, and these were enumerated by Thunberg (1811d:5-8). The African species listed below are not found among them. The remainder of Carlsson's birds was distributed among Adolf Ulrik Grill and Gustaf Paykull (Löwegren 1952:209, 341).

There were 12 birds included in Sparrman's *Museum Carlsonianum* said to occur in South Africa, as follows.

3 (1786): '*Cuculus serratus*' with habitat 'Promontorium bonae Spei'. This is the first scientific description of *Clamator jacobinus serratus* (black form). The type specimen is now unknown. The type locality was restricted to the 'Cape Peninsula' by Grant & Mackworth-Praed (1936:116).

5 (1786): '*Certhia melanura*' from the 'Promontorium bonae Spei.' This is the first scientific description of *Anthornis melanura*. The species is unknown from South Africa and lives in New Zealand (Layard 1867, no.141).

11 (1786): '*Sterna alba*' from 'India Orientali, ad Promontorium bonae Spei insulasque Maris Pacificis.' This is the first scientific description of *Gygis alba*. Its occurence in South African waters is doubtful (Clancey 1980:86). Its usual occurrence is further east (Sundevall 1857:5).

18 (1786): '*Loxia totta*' found by Sparrman in South Africa 'inter stationes Hottentottorum detexi.' This is the first scientific description of *Serinus tottus*, resident in the Western Cape Province.

22 (1786): '*Muscicapa ochracea*' from the 'Promontorium bonae Spei.' The species is not identified.

24 (1786): '*Muscicapa albifrons*' from the 'Promontorium bonae Spei.' A doubtful bird unrecognisable from the plate (Sundevall 1857:6).

33 (1787): '*Sitta chloris*' found near Achterbruintjeshoogte, 'In Provincia Promontorii bonae Spei, Akter Brunties Hoogtens dicta, hanc speciem detegimus.' The species, *Sitta chloris*, is only known from New Zealand (Sundevall 1857:8). Gyldenstolpe (1927:70) recorded the existence of the type specimen, an adult, in the Stockholm museum (ex Mus.Carlsonianum), no.67. He restricted the type locality to Dusky Sound, New Zealand, South Island.

45 (1787): '*Tanagra capensis*' without locality. It is only mentioned here because the specific epithet *capensis* would point to the Cape of Good Hope. It is, however, a New Zealand bird, *Turnagra capensis* (Sparrman, 1787), first seen in Dusky Sound (Medway 1976b:130-132).

46 (1787): '*Muscicapa bicolor*' from 'Africa meridionali'. This is a depiction of *Cossypha dichroa* (Gmelin, 1789.)

47 (1787): '*Muscicapa fuliginosa*' from the African deserts between 'rivulum Heuj et Fontem Quammedacka.' This bird is not known from South Africa, but lives in West Australia, *Sericornis fuliginosa*. Sparrman (1977:69) was at 'Heuy' on 16 December 1775 and at Quammedacka on the next day. Forbes (in Sparrman, l.c.) stated that 'Heuy' or Hooi probably meant the 'valley of the Soutkloof river, perhaps near Wittekloof 1 km west of Saltaire station.' (see 9.7, locality 35). The bird is not mentioned in the travel account.

58 (1788): '*Certhia scarlatina*' from the 'Capite bonae Spei.' It had been collected by Hornstedt. It is *Nectarinia afra* L., 1766. The type specimen of *Certhia scarlatina* Sparrman, 1788 is present in the Stockholm museum: 'male ad., Cape of Good Hope. No date. Coll.Mus.Carlsonianum. C.Fr.Hornstedt leg., no.15' (Gyldenstolpe 1927:32). Other specimens donated to Carlsson by Hornstedt, from Asiatic localities, were described on plates 67, 71, 72, 73, 75, 88, 98 and 100.

61 (1788): '*Pelecanus capensis*' from 'Sinu Falso ad Promontorium bonae Spei.' This is the first scientific description of *Phalacrocorax capensis* with type locality False Bay. The type specimen, a mounted skin, is in the Stockholm museum: 'adult, no date. Sparrman leg. (ex Mus.Carlsonianum) no.55' (Gyldenstolpe 1927:95).

9.6 DRAWINGS

Sparrman did not try to assemble pictorial representations of the Cape fauna and flora. In 1777, he mentioned in his published letter to J.R.Forster, his 'regret that I was not able to draw the objects of natural history, and have an hundred times wished that your son had been with me for this purpose' (Sparrman 1777a:41). However, to George Forster he confessed to have made 'some drawings ... not of plants, but of one or some animals and the anatomical parts' (7 August 1776, Leuschner et al. 1982:22). In his travels he mentioned a drawing of the bushbok taken from the skin (1783:283, 1975:254), a rough sketch of a buffalo (1783:455, 1977:54), a drawing of a rhinoceros skull (1783:500, 1977:82) and one of a dried skin of a young hippopotamus (1783:694, 1977:212). It could well be that the plates accompanying his short papers and the *Resa* were prepared in Sweden using specimens which he brought to his home country. All animals depicted, except *Mus pumilio*, are known to have been among the animals collected by Sparrman. The plates in the original Swedish editions were engraved by F.Akrel who signed some (not all) of them, but the name of the draughtsman is not provided.

9.7 TRAVELS IN SOUTHERN AFRICA

The first part of Sparrman's book published in 1783 was mainly concerned with his two visits to South Africa. Although he often called himself a botanist, the emphasis in the book is zoological. This exasperated the editor of the best recent edition, Dr V.S.Forbes: 'This enthusiasm has outrun his discretion as to what would constitute a fair proportion of space on this topic for the average reader. For example, most people will find excessive the seventeen pages he devotes to the habits, dissection and anatomy of the black rhinoceros. It cannot be denied that his book is overloaded with ponderous scientific dissertations upon mammalian zoology, and this applies particularly to the latter half' (Forbes 1975:3). It may be said in Sparrman's defence that he was about the first to pay any kind of attention to the mammals living in the Cape interior. Their names could be found in earlier works, but to most readers the appearance and habits of even the rhinoceros, giraffe and springbok, just to name a few, must have been totally unknown. Sparrman, of

course, had already written about the most interesting species in several short papers, but certainly he was aware that these did not have a wide circulation outside Sweden. I believe that Sparrman was justified to include descriptions of the mammals, but maybe it would have been better if he had assembled them separately in an appendix. His manner of presentation is a problem, in so far that the information may not always apply to the animals shot or observed at that particular point of the narrative. Still, there are many interesting distribution records in the book. I have here followed the order in which Sparrman treats the different species.

In the analysis that follows, I have referred to two editions of Sparrman's book. First the Swedish original following the facsimile reprint of 1968, with the date '1783 ...'; secondly the English translation as published by the Van Riebeeck Society with dates '1975' for volume 1 and '1977' for volume 2. This last edition has made a real contribution to making Sparrman's work more generally accessible through the inclusion of modern maps and a wealth of scholarly footnotes. The names of the animals are quoted both in Swedish and in English. If Sparrman used a binominal name, this is only given with the Swedish name; the page references are combined.

9.7.1 *First stay at the Cape*

Sparrman arrived at the Cape of Good Hope on 12 April 1772 on board the *Stockholms Slott*. He intended to combine possible scientific investigations with the instruction of the children of Johann Frederik Kirsten, who was then living in Simon's Town on False Bay (see 9.2). Soon after his arrival, Sparrman spent a little time together with Thunberg, an old friend from Uppsala who arrived on 17 April 1772 from Holland (1975:52-53). In September 1772, Sparrman moved with the Kirsten family to Alphen near Constantia, from where he made an 8-day foot excursion to Paarl. Later that year, he was brought into contact with J.R. and George Forster, who were on the first leg of their journey of exploration with Captain Cook and were looking for an assistant. Sparrman decided to join them and left the Cape on 23 November 1772 to return, after his adventures in the Pacific, on 21 March 1775, an episode only briefly described in this first part of Sparrman's book (1783:86-106, 1975:107-124).

The first eight localities given below are all in the direct vicinity to Cape Town. Then follow 9-11 for his trip to Paarl, on which he was accompanied by F.P.Oldenburg (see 8.4.1).

[1] Malagas Island, now Seal Island 38°8'S, 18°35'E
Spheniscus demersus, 'pinguiner' – 'penguins' (1783:30, 1975:60)
Arctocephalus pusillus, 'skjålar' – 'seals' (l.c.)

[2] Robben Island 33°49'S, 19°21'E
Penguins and seals 'seldom found there now, since the island has been inhabited' (1783:30, 1975:60).

[3] Dassen Island 33°26'S, 18°5'E
Arctocephalus pusillus, seals 'found in much greater quantities' (1783:31, 1975:60). Sparrman suggested that these belonged to the same species as the seals observed in New Zealand, Tierra del Fuego and Southern Thule island. J.R.Forster (in Hoare 1982:275, 706) recorded seals in the two first named localities, now identified as *Arctocephalus australis* (Zimmermann, 1783).

[4] Sea around Cape of Good Hope.
The identification of these invertebrates and fishes follow those in the footnotes of the 1975 edition of the book.
Torpedo sp., 'electriska råckan, Raja torpedo' – 'electric ray-fish, Raia torpedo' (1783:32, 1975:61)
Jasus lalandii, 'Cancer norvegicus, ett slags snåcka (a kind of lobster)' (l.c.)
Haliotis midas, 'Klippkausen (Haliotis Linn.)' (l.c.)
Loligo reynaudi, 'Sepia Loligo' (l.c.)
Sepia papillata, 'Sepia Octopodio' (1783:32, 1975:62)
Crassostrea margaritacea, 'ostron' – 'oysters' (1783:33, 1975:62)
Choromytilus meridionalis, 'musslor' – 'muscles' (l.c.)
Eptatretus hexatrema, the Cape hag-fish 'Myxine glutinosa' (l.c.)

[5] Between Simon's Town and Muizenberg 34°10'S, 18°27'E
Papio ursinus, 'babianer' – 'baboons' (1783:36, 1975:67).

[6] Sandvlei 34°7'S, 18°30'E
Phoenicopterus ruber, 'flammingos (Phoenicopt.ruber)' (1783:36, 1975:67).

[7] Table Mountain 33°58'S, 18°25'E
Panthera pardus, 'Leoparder' – 'leopards' not seen (1783:42, 1975:72)
Crocuta crocuta, 'Tiger-vargar (Hyaenae)' – 'tyger-wolves' not seen (l.c.).

[8] Around Alphen and Constantia 34°3'S, 18°25'E
Raphicerus campestris, 'Stenbockar (Antilope grimmia Pallas)' – 'Steenbocks' (1783:50, 1975:79).
Oreotragus oreotragus, 'klippspringare' – 'klipspringers' (l.c.) but not seen nearby.
Sylvicapra grimmia, 'dykare-bockar' – 'duykerboks' (1783:51, 1975:79).
Viverridae, 'meuishunden (Viverra ichneumon)' – 'muishonds' (l.c.). It cannot be ascertained which species is meant as no description is given (Skead 1980:78). *Herpestes ichneumon* occurs in the Cape Province but does not reach as far west as the Cape Peninsula. Two species live there, *Galerella pulverulenta* and *Cynictis penicillata*.
Genetta sp., 'muskiliat-katten (Viverra genetta)' – 'civetcats' (l.c.). Both *G.genetta* and *G.tigrina* occur in this region.
Ictonyx striatus, 'Viverra Putorius' (1783:53, 1975:80), seen in 1775-6 caught by T.F.Dreyer on his farm at Rondebosch (33°58'S, 18°28'E) now within the Cape Town boundaries (Skead 1980:69).

Sparrman (l.c.) stated that once he saw an animal roughly 3½ feet high, ash-grey in colour, running away. He thought that maybe it had been a hippopotamus having strayed from Zeekoe-Valley. The identification is somewhat unlikely.

[9] Outside Cape Town towards Paarl 33°52'S, 18°30'E
Cicindela sp., 'Cicindelae, af ett okånt Species' – 'Cicindela of an unknown species' (1783:60, 1975:86).

[10] Vissershoek 33°46'S, 18°32'E
Canis mesomelas, 'Jackhalsen eller Afrikanske Räfven' – 'the jackals, or African foxes, now began their nightly serenade' accompanied by frogs and nightjars (1783:62, 1975:88).

[11] Babylonstooren 33°50'S, 18°58'E
'Ormar, Scorpioner, Cameleonter' (1783:78) – 'serpents, scorpions, cameleons' (1975:100).

9.7.2 *Second stay at the Cape*

Sparrman's second stay in South Africa lasted from 21 March 1775 to 11 May 1776. During this time he undertook one long expedition to the east from 25 July 1775 to 15 April 1776. He was accompanied by Daniel Ferdinand Immelman.[7] The route taken was discussed in detail by Forbes (1945, 1965:46 and in Sparrman 1975-1977, maps I-II) and summarized in Gunn & Codd (1981:330). Sparrman first travelled via Somerset West to the hot bath at Caledon staying for some time to cure some ailments. On 26 August 1775 he continued to Riviersonderend,

7. Son of Jobs Ludolf Immelman and Sara Christina van Steenwijk. His biography is briefly given by Karsten 1957b:135-136 and Forbes in Sparrman 1975,I:132 note.

across the Hessequas Kloof to Swellendam, proceeding past Heidelberg and Riversdale to Geelbeksvlei near Mossel Bay. After an excursion in Outeniqualand, he went across the Attaquas Pass to the Langkloof, which he followed eastwards to the vicinity of Humansdorp. They passed the Gamtoos and Van Staadens rivers, went north past Perseverance to Sunlands, east to the Assegai bush. He then travelled to Kommadagga Spring, crossed the Little Fish River to the area called Agter Bruintjes Hoogte. The furthest point reached was Koks Kraal. On the return journey, he followed roughly the same route back to Swellendam, whence he followed the Breede River to Tulbagh, and then south to Wellington and Cape Town.

[12] Between Botrivier and Caledon 34°15'S, 19°10-25'E

Alcelaphus buselaphus, 'haartebeesten' – 'hartebeests' (1783:133, 1975:142). Sparrman (1779d) described this species using the (mistaken) scientific name *Antilope dorcas*.

Damaliscus d.dorcas, 'buntebocken' – 'buntebocks' (l.c.) said to be the *Antilope scripta* of Pallas (1767:13) and the Guib of Buffon. Sparrman did not confuse the bontebok and the bushbok, but misapplied the descriptions by Pallas and Buffon to the first species. He was incorrect in stating that females lack horns.

Equus zebra, 'vilda Zebrer, af Colonisterna Vilde Paarden (Vild-Häster) kallad' – 'whole troups of wild zebras, called by the colonists vilde paarden' (1783:133, 1975:143); the skins were sold as 'sea horse hides'.

Struthio camelus, 'struzar' – 'ostriches' (1783:134, 1975:143).

Taurotragus oryx, 'elands (Antilope oryx)' (1783:135, 1975:144), here practically exterminated in Sparrman's time.

Hystrix africaeaustralis, at the Bot River he carried a 'foetus of a hystrix' in spirits (1783:182, 1975:179).

[13] Area around Warm Bath (Caledon) 34°14'S, 19°26'E

Raphicerus campestris, 'Stenbock' – 'steenbock' (1783:153, 1975:159).

Felis lybica, 'vild-katt' – 'wild cat' (1783:153, 1975:160): one specimen was shot and some measurements were recorded.

Sparrman at the same time discussed two other cats:

1. *Felis caracal*, 'roye-katt' – 'roode-kat' (1783:154, 1975:160). He had examined a skin and thought it might be identical with the Persian cat of Pennant, and the Caracal of Buffon.
2. *Felis serval*, 'tiger-katt och tiger-boskatt' – 'tyger-kat and the tyger bosch-kat' (1783:155, 1975:161) identical to the serval of Buffon.

Hystrix africaeaustralis, 'ejstervarken (Hystrix cristata)' – 'yzer-varken (or iron-hog)' (1783:156, 1975:161) discussed how to catch it and the taste.

Francolinus africanus, 'patreisen (genus Tetrao)' – 'partridge' (1783:157, 1975:162).

Francolinus capensis, 'phesanten' (genus Tetrao)' – 'pheasant' (l.c.).

Vanellus coronatus, 'keuvitts, Scolopax capensis' (l.c.).

Eupodotis afra, 'knorrhane kallades en Otis' – 'korr-haen ... a kind of Otis' (1783:157, 1975:163).

Sagittarius serpentarius, 'Secretaries-vogel' – 'Secretaries bird' (1783:158, 1975:163) also called 'slangen-vreeter'. It had been published by Vosmaer (1769). Sparrman described its appearance, how to catch it and called it *Falco serpentarius*.

Lycaon pictus, 'wilde hunden' – 'wild dogs' (1783:161, 1975:165) in two kinds: one larger, reddish in colour with black spots; the other smaller browner. Both kinds probably belong to the same species which is very variable in colour. The same applies to 'yet another species' which Sparrman never saw but heard about from a man called Potgieter at Mossel Bay. It would be similar in size and shape to a common dog, with larger ears, a dark colour and white belly (1783:162, 1975:165-166).

Crocuta crocuta, 'tiger-vargen eller tiger-ulfven' – 'tyger-wolf' (1783:163, 1975:166), the same as the Spotted Hyaena of Pennant (1781:252) different from *Canis hyaena* L. Sparrman described its appearance and how dangerous it was (1783:163-170, 1975:166-170).

One other species of hyena was known in South Africa:

1. *Hyaena brunnea*. Sparrman gave two names 'Bärg-ulf' and 'Strand ulf': the 'mountain-wolf is of a greyish cast, but the strandwolf blackish with a grey head' (1783:170, 1975:170-171). He described a skin bought at Swellendam in 1776 from the Landrost to whom it had been presented by a farmer living in the northern part of his district. It could be similar to *Hyaena canina* of Pennant, or *Canis hyaena* of Linnaeus. If Sparrman really thought there were two kinds identified by the names given above, one of them is left totally without description here.

Sparrman here mentioned another piece of skin said to belong to a wolf seen in Lange Kloof near 'Gantze Craal Rivier' (= Gansekraal River, 33°47'S, 22°43'E). The colour of the skin was like that of Swedish wolves, but the hair was coarser and harsher. It cannot be identified like this, and there is insufficient evidence to assume that it was *Proteles cristatus* (Sparrman 1975:173 note).

Panthera leo, 'leyon' – 'lion' (1783:176, 1975:174), almost extinct but sometimes seen.

[14] near Swartberg 34°12'S, 19°36'E

Euplectes capensis, 'en sort stekta Sparvar eller Finkar, (Loxia capensis)' – 'a sort of sparrow or finch (Loxia capensis)' (1783:179, 1975:177): plumage is black and yellow, changing, with the approach of summer, into a blood-red hue. This must be a confusion with another species, *Euplectes orix*.

Here Sparrman inserts an account of the Hottentots in which he mentioned that there is a kind of insect (the mantis) which colonists called the 'Hottentot's God' (1783:219, 1975:205).

[15] Swellendam 34°2'S, 20°26'E

Equus quagga, 'quagga' (1783:233, 1975:215) like a zebra, 'the difference consisting in this, that the quagga has shorter ears, and that it has no stripes on its forelegs, loins, or any of its hindparts.' Sparrman saw a quagga which had been very young when caught.

[16] Buffeljagts River 34°1'S, 20°40'E

Cercopithecus aethiops, 'Markattor' – monkeys with 'coal-black colour, and about the size of an ordinary cat' (1783:244, 1975:224). Also said to occur in Grootvader-bosch and Houtniquas, but not seen there.

[17] Outeniqualand, between Mossel Bay and George

Loxodonta africana, 'elephanterne' – 'elephants' (1783:281, 1975:253); largely exterminated here, but present beyond the Keurbooms River in Sitsikamma (the region east of Plettenberg Bay). Sparrman probably reported this from hearsay as he did not visit the Tsitsikamma region.

Panthera leo, 'lejon' – 'lions' were irregular visitors (l.c.)

Panthera pardus, 'tigrar' – 'tigers, or more properly leopards' present in the forests (l.c.)

Crocuta crocuta, 'ulfvar' – 'wolves' (l.c.)

Cercopithecus aethiops, 'svarta markattor' – 'black monkies' (l.c.)

Potamochoerus porcus, 'gråfsvin' – 'the sort of badger ... called by the inhabitants berg-varken' occurring here as well as nearer to the Cape (1783:282, 1975:253). Sparrman never saw the animal. The English translation of 'gråfsvin' as badger appears inaccurate, as it could mean grey pig.

Another species of 'pig' was not seen but heard about:

1. *Orycteropus afer*, 'aardvarkens eller jordsvin' – 'aardvarken or earthpig' (l.c.) not found here, but presumably common in the Zwartland (distr.Malmesbury, S.W.Cape).

Alcelaphus buselaphus, 'haartebeestar' – 'hart-beests' (1783:282, 1975:254) might have occurred here earlier because a place was called hartebeest-drift.

Tragelaphus scriptus sylvaticus, 'bosch-bocks' – 'bosch-bock (or wood-buck)' (l.c.). The animal had earlier been described by Sparrman (1780a) as *Antilope sylvatica*. It was here illustrated, on pl.III (1783) or pl.VI (1975). Sparrman only saw it in the forest areas near Grootvaderbosch (34°1'S, 20°47'E) just east of Swellendam, and here in the Houtniqua forest. The first place mentioned was taken as the type locality (Roberts 1951:314). Sparrman's description was taken from a stuffed skin (1783:282-291, 1975:254-259).

Philantomba monticola, 'gnometie', also called the 'ervetie' (1783:291, 1975:259). Sparrman often saw traces of this small duiker, but the animal only once, briefly, in 'Sitsicamma'; in that region he only visited the area northwest of the mouth of the Krom River (locality 25, below) (see Forbes in 1975:311 note).
Lepus saxatilis, 'harar' – 'hare' like the common hare (1783:291, 1975:259)
Another species of hare was known:
1. *Lepus capensis*: Sparrman only examined a young specimen in Cape Town.

Syncerus caffer, 'bufflar' – 'buffaloes' tracks (1783:281,292, 1975:253,259).
Felis serval, 'tigerkattor' – 'tyger cat' (1783:281, 1975:253) or 'tiger-boschkatten' – 'tyger-bosch-kat' (1783:293, 1975:260).
Raphicerus melanotis, 'greisbock' – 'grys-bock' (1783:293, 1975:260)
Bostrychia hagedash, 'ett nytt species Tantalus ...' – 'a new species of tantalus, called by the colonists hagedash, and also hadelde' (1783:293, 1975:260). Sparrman shot one which he briefly described. He also found it at the Zwartkops River (see 29 below).

[18] Zaffraan-crael, or Saffraan River at Attaquas Pass 33°49'S, 22°2'E
House-flies in enormous quantities (1783:308, 1975:272).

[19] Canna or Kleindorn River = Klein Doring River 33°47'S, 22°11'E
Francolinus sp., 'rapphöna (patreisen)' – 'partridge (patrys)' (1783:311, 1975:275), shot and eaten.

[20] Zandplaat on Kleindorn River (probably on Groot Doring river) 33°48'S, 22°15'E
Aonyx capensis, 'utter' – 'otter' (1783:315, 1975:278). Sparrman saw a specimen 'extremely well stuffed' which he described briefly. Its colour was lighter than '*Mustela lutra* L.' Length without tail was 2,5 feet, tail over 18 inches.
Sparrman here enumerated two fishes commonly found in the rivers in the Cape interior:
1. *Sandelia capensis*, a kind of carp, very small (1783:316, 1975:278)
2. *Labeo umbratus*, called 'Cyprinus gonorynchus' (l.c.).

[21] Wagenbooms River = Wabooms River at Joubertina 33°49'S, 23°51'E
Pseudocordylus microlepidotus, 'en ko Isvart ödlä – 'a lizard as black as coal' (1783:323, 1975:284).
Procavia capensis, the 'dass' of the colonists, or 'Cavia capensis' (l.c.).

[22] Essenbosch 33°57'S, 24°27'E
Pneumora sp., many insects of this genus first described by Thunberg (1775) including *P.immaculata*, *P.maculata* and *P.sexguttata*. Sparrman (1783:326) suggested to include *Gryllus papillosus* in this genus, which Thunberg (1810:58, 61) accepted.

[23] Diep River 34°2'S, 24°35'E
Loxodonta africana, the huts of Hottentots and Boshies-men were covered with strips of elephant meat (1783:327, 1975:288). Sparrman here includes several pages about the method of hunting, appearance and habits of elephants (1783:327-362, 1975:288-311). The animal was rare in the Langkloof, but still existed in Tsitsikamma in the south (1975:289). The height could reach 15-16 feet, tusks weighed up to 100-150 dutch pounds, and those could be sold at that amount in guilders, giving an earning of some 300 guilders per shot (1975:294). One elephant was hunted at the mouth of the Zondags River 33°43'S, 25°50'E (1975:294), another near the Zwartkops River, near the present Port Elisabeth (1975:296). Sparrman discussed their copulation (1975:297-300), calves (1975:300-301), food (1975:301-302) and utility (1975:302-303). Elephants would still exist in the Cape colony, but they 'are now become more wary, withdrawing into Sitsicamma and other woody tracts of country where they are difficult to get at, or far up the country on the north side of the Fisch-Rivier and into Cafferland' (1783:351, 1975:303). He continued by describing the local method to trap elephants (1975:304), the tail (1975:305), fossil elephant bones (1975:305-309) and some anecdotes about Indian elephants (1975:309-311).

[24] Leeuwenbosch = Leeubos 34°3'S, 24°38'E
Panthera leo, the place is named after lions (1783:362, 1975:311).

[25] Sitsicamma = Tsitsikamma, meant to be the area east of the Leeubos River and north of the Krom River, i.e. near Humansdorp about 34°5'S, 24°45'E
Alcelaphus buselaphus, 'Antilope Dorcas, eller Haartebeests' – 'numerous herds of the *Antilope dorcas* (or hartbeest) (1783:364, 1975:312)
Philantomba monticola, 'gnometie' (l.c.)
Loxodonta africana, elephants are found further to the west in the forests (l.c.).
Syncerus caffer, buffaloes in the same place as the elephants (l.c.).

[26] Zeekoe-rivier = Seacow River 34°5'S, 24°50'E
Hippopotamus amphibius 'zeeko, Hippop. Amph.' – 'sea-cows' (1783:365, 1975:313).
'*Termes capensis*' found in large numbers described by De Geer (1778:47, pl.28 figs. 1-4) (1783:382, 1975:326).

[27] Galgebosch 33°53'S, 25°14'E
Syncerus caffer, tracks of 'bufflar' - 'buffalo' (1783: 394, 1977: 14).

[28] near Great Zwartkops river 33°48'S, 25°31'E
Equus quagga, 'large herds of – quagga' (1783:402, 1977:20).
Alcelaphus buselaphus, 'haartebeestar' – 'hart-beests' (l.c.)
Syncerus caffer, six females with two young (l.c.).

[29] Zwartkops Saltpan 33°47'S, 25°32'E
Pephricus paradoxus, insect called 'Cimex paradoxus' (1783:406, 1977:23) first described by Sparrman (1777c) and illustrated on pl. VII of the English edition, but not in the Swedish original.

[30] Kuga River = Coega River 33°45'S, 25°35'E
Lepus saxatilis, 'harar' – 'hares' (1783:407, 1977:24).
Alcelaphus buselaphus, 'haartebeestar' – 'hartbeests' (1783:409, 1977:25).

[31] Sundays River 33°35'S, 25°37'E
Panthera leo, recent traces (1783:409, 1977:26)
Loxodonta africana, single elephant in the distance (l.c.)
Numida meleagris, 'pårlhöns, *Numida meleagris*' – 'guinea-fowls' (l.c.)

[32] 'Zondag-riviers-drift' = probably near Sunland 33°31'S, 25°36'E
Syncerus caffer, two buffaloes were hunted (1783:410, 1977:26)
Tragelaphus strepsiceros, 'koeddu (*Antilope strepsiceros* Pallas)' – 'Koedoe' (1783:411, 1977:27)
Phacochoerus aethiopicus, 'bosh-varkens ... wilde varkens' (1783:414, 1977:28-29). It had been described by Pallas (1766:16) as *Aper aethiopicus*. Sparrman described it briefly (1783:414-419, 1977:29-30). He later caught a young specimen alive at the Fish River, but he had to kill it (see locality 41).

[33] Near Little Sundays River c. 33°28'S, 25°37'E
Syncerus caffer, an old buffalo was shot (1783:429, 1977:38). The lice taken from this specimen were later described by De Geer.
Panthera leo, roaring of lions (1783:430, 1977:39). Sparrman here includes a long report about the hunting, danger, appearance and habits of the lion (1783:430-455, 1977:39-45). Other localities mentioned as places where the hunting stories took place were:
– upper part of the Sunday River in the Camdeboo (1977:45)
– Zeekoe River (1977:49)
– Boshiesman River (1977:50)
– and the area east of the Krom River (1977:51).

Syncerus caffer, one buffalo was shot (1783:455, 1977:54). Sparrman made a drawing, examined the animal and took measurements which he provided on 1783:456-457, 1977:55. The buffalo's appearance and its habits are described (1783:457-463, 1977:56-59). He called it *Bos caffer*, a name which he had proposed in 1779c. Later that same day, two more buffaloes were seen.
Equus quagga, a great number of quaggas (1783:464, 1977:59).
Taurotragus oryx, an eland bull (l.c.)

[34] 'Kurekoiku' = Hockoe on Bushmans River 33°20'S, 26°10'E
Syncerus caffer, herd of 70-80 buffaloes (1783:472, 1977:65).
Panthera leo, 2 lions were seen (1783:478, 1977:68).

[35] Near Heuy = Soutkloof River valley at Wittepoort 33°11'S,25°56'E
Felis serval, 'tigerbosh-kattor' – 'tyger-cat', 2 seen (1783:478,

1977:69).
Struthio camelus, 'Struts-fogel' – 4 'ostrich' chicks (l.c.)

[36] Quammedacka Spring = Kommedagga 33°8'S, 25°53'E
Syncerus caffer, buffalo tracks (1783:479, 1977:69).
Diceros bicornis, rhinoceros tracks (l.c.)
Antidorcas marsupialis, 'springbockar eller Luftspringare-bockar' – 'a herd of about two thousand spring-bocks' (1783:480, 1977:70). Sparrman had described the species in 1780b, which he repeated here in similar words (1783:480-489, 1977:70-76). Other localities recorded for the springbock: (1) One specimen in the plains near the Boshiesmans River (c. 33°15'S, 26°E); (2) big herds between the two Fish rivers, zie [38]; (3) large numbers in the Bokkevelds, and (4) a few at Roode-Zand (33°17'S, 19°10'E).
Diceros bicoris, 'tvåhornade Rhinoceros (Rhin. bicornis)' – 'two-horned rhinoceros' (1783:489, 1977:76). Sparrman gave an account how he hunted a rhinoceros (1977:76-80) and how two specimens were shot by his Hottentots on 19 December 1775. Sparrman made a drawing and took the measurements of the smaller specimen (1977:80), and described its appearance, size and anatomy (1783:496-512, 1977:80-90) as he had done in 1778b. It may be noted that this account of rhinoceros anatomy was the first ever to appear in print (Cave & Rookmaaker 1977:154). Sparrman continued to describe the nature of the skin from which some Acari were described by De Geer (1778), its manner of copulation and its senses (1783:511-517, 1977:88-93).
Equus quagga, 'quagga' (1783:495, 1977:80).
Alcelaphus buselaphus, 'haartebeests' – 'hartbeests' (l.c.)
Phacochoerus aethiopicus, 'bosh-varken' – 'wood swine' (1783:496, 1977:80).
Taurotragus oryx, 'elands (*Antilope oryx*)' (1783:496, 517, 1977:80,93).

[37] Little Fish River (Klein Visrivier) 33°5'S, 25°52'E
Antidorcas marsupialis, 'springbockar' – 'springboks' (1783:518, 1977:94)
Panthera leo, roaring of lions (l.c.).

[38] Between Little and Great Fish Rivers, on the way to Somerset East 33°S, 25°45'E
Panthera leo, 'saw two large lions' (1783:519, 1977:94); 'one of these had a mane, and consequently was a male; but both of them were nearly of an equal size, and seemed to be considerable higher and longer than our saddle-horses, which were of the size of common horses' (1977:95).
Struthio camelus, 'struzfogel' – 'ostrich' (1783:520, 1977:95). Males and females would alternate to sit on the eggs. The bird is described (1783:520-526, 1977:95-99).
Syncerus caffer, buffaloes are hunted (1783:528-531, 1977:100-102).
Taurotragus oryx, an eland was shot (1783:531, 1977:102).
Panthera leo, roaring of lions (1783:532, 1977:102).
Crocuta crocuta, yelling of hyenas (l.c.)
Connochaetes gnou, 't'Gnu' – 'gnu' (l.c.). It is briefly described and classified as an antelope rather than a buffalo.
Canis mesomelas, 'jackals' – 'jackal' (1783:537, 1977:105).
Equus quagga, 'quaggor' – 'quagga' numerous herds (l.c.)
Alcelaphus buselaphus, a young female hartebeest was shot (1783:537, 541, 1977:105, 108).
Antidorcas marsupialis, 'springbockar' – 'springboks, by the hundreds and thousands at a time' (l.c.)

[39] Agter Bruntjes Hoogte, the region around Somerset East 32°50'S, 25°35'E
Unicorn, 'Enhörningen' was suspected to occur here from a rock-drawing of a single-horned animal (1783:550, 1977:116). Gordon, who saw the same depiction, declared it to be 'a bad likeness of the rinoceros' (in Sparrman 1977:116 note). Sparrman copies a letter from Pallas written to him in December 1778 quoting a reference to Varthema ([1519] 1928:22), now considered to describe two captive rhinoceroses in Mecca.
Connochaetes gnou, a large herd, and a male was shot (1783:579-580, 1977:138-139). Sparrman caught a young one alive, which he later dissected. Some measurements are given.
Equus quagga, one quagga was shot (1783:580, 1977:139).
Proteles cristatus, 'grå jackals' – 'grey jackal' (l.c.). Sparrman had its skin but it was stolen from his waggon by some dogs. He had a drawing of its liver. He called it *Viverra cristata* (1783:581, 1977:140). This is the first scientific name of the species.
Otocyon megalotis, 'öntjes jackals' – 'uintjes jackal' (1783:582, 1977:140) with a very brief description.
Canis mesomelas, 'jackals' – 'jackal' (l.c.).
Mellivora capensis, 'ratel' (1783:583, 1977:141). Sparrman repeated the description earlier given in 1777b as *Viverra ratel* (1783:583-588, 1977:141-144).

At this point of the narrative, Sparrman inserted a long section with descriptions of animals which were not necessarily seen in this locality. I shall list these here in the order used by Sparrman: 2 species of *Viverra*, 1 bird, 4 digging animals, an enumeration of 15 African antelopes and 3 other mammals. This starts with the two viverrid species related to the ratel mentioned above.

1. *Vulpes chama*, an animal of light red coour which he glimpsed between the two Fish rivers (locality 38). This would possibly be the 'zerda' according to Sparrman (1783:589, 1977:144), but *Fennecus zerda* does not occur in South Africa.
2. *Otocyon megalotis* (?), a coal-black animal seen near Niez-hout-kloof possibly the same as the 'uintjes jackal' mentioned above in this locality 39 (1783:589, 1977:145).

Next is the description of one bird:

3. *Indicator indicator*, 'bi-förrådare-göken (*Cucculus indicator*)' – 'bee-cuckow (*Cuculus indicator*)' (1783:591, 1977:146). This bird is described in the same way as in 1777a. Sparrman thought that this could be the same bird as the 'moroc, or honey-bird' mentioned by Lobo whom he quoted here (cf. Lobo 1984:168-169).

The next group comprises four digging animals:

4. *Pedetes capensis*,' *Yerbua capensis*' (1783:600) or '*Jerbua capensis*' (1977:152) which had been described by J.R.Forster (1778). It was seen near Stellenbosch and in the Camdeboo.
5. *Georychus capensis*, 'bleesmoll, Mus capensis' – 'bleesmol' (1783:601, 1977:153) earlier noted by Pennant, Schreber, Pallas and Brown. It was most common around the Cape.
6. *Bathyergus suillus*, 'sand-mol, Mus africanus' – 'zand-mol' (1783:601, 1977:153) briefly described.
7. *Chrysochloris asiatica*, an animal which Sparrman described after a preserved specimen. He correctly referred it to the shrews (Insectivora) rather than to the moles (Rodentia). He called it *Sorex aureus* (1783:603, 1977:154). According to him it had earlier been noted as *Talpa asiatica* by Linnaeus (1758,I:53), the *Talpa sibirica* of Pennant, Seba and Klein, and as *Talpa aurea* by Brisson, Pallas and Schreber, as well as the variable mole by Brown.

Next follows an enumeration and treatment of 15 species of antelopes. In most cases, several references are given, which are not repeated here. Usually there is a short description of the appearance.

8. *Alcelaphus buselaphus*, 'hartebeestar' – 'hartebeest *Antilope dorcas*' (1783:604-611, 1977:155-158). It was common in the whole colony and in Agter-Bruintjes-Hoogte [39] usually in herds, sometimes alone.
9. *Taurotragus oryx*, 'eland eller Kaapse elandt ... *Antilope oryx*' (1783:611-620, 1977:158-164). Sparrman's plate was drawn after a living specimen caught while it was young.
10. *Tragelaphus strepsiceros*, 'koedoe' (1783:620-624, 1977:164-166). Sparrman saw a herd of 7-8 animals on 29 January 1776, in locality (42) below.
11. *Oryx gazella*, 'gemse-bock' – 'gemsbok' (1783:624-626, 1977:166-168) occuring in the north-western part of the colony, but Sparrman never saw it.
12. *Hippotragus leucophaeus*, 'blauwe Bock' – 'blaauw-bok' (1783:626, 1977:168) of which Sparrman saw a preserved skin at Krakeel River, but he never observed it alive.
13. *Damaliscus dorcas*, 'bunte bock' – 'bunte-bok' (1783:627, 1977:168), not seen east of Swellendam. However, a similar species was observed in Tambuki-land, a region north of the Sneeuwber-

gen.

14. *Connochaetes gnou*, 't'gnu' – 'gnu' (1783:627, 1977:169).
15. *Tragelaphus scriptus sylvaticus*, 'bosh-bocken' – 'bosch-bok, *Antilope sylvatica*' (1783:628, 1977:169).
16. *Antidorcas marsupialis*, 'spring-bock, *Ant.pygarga*' (1783:628, 1977:169).
17. *Pelea capreolus*, 'rheebock' – 'ree-bok' (1783:629, 1977:169), which was only described briefly because Sparrman had lost his notes and drawing of this species. It was found in Hottentots Holland, the Attaquas-kloof and Lange Kloof.
18. *Redunca arundinum*, 'riet-rheebock' – 'riet-reebok' (1783:629, 1977:170) only seen in Agter Bruintjes Hoogte [39].
19. *Raphicerus campestris*, 'flacksteenbock' – 'vlaksteen-bok' (1783:630, 1977:170) with alternative names: 'bleekbok, vaal reebok'. It was found at Agter Bruintjes Hoogte [39] and in the desert. It was very pale-red in colour and resembled the steenbok which is now believed to be conspecific, but Sparrman mentioned it separately, in only one line (1783:632, 1977:171).
20. *Raphicerus melanotis*, 'greisbock' – 'grys-bok' (1783:631, 1977:171) possibly the *A.grimmia* of Pallas. No description.
21. *Sylvicapra grimmia*, 'deuikerbock' – 'duyker-bok' (1783:631, 1977:171).
22. *Oreotragus oreotragus*, 'klippspringer' – 'klipspringer' (1783:631-632, 1977:171-172).

Finally Sparrman mentioned three other mammals.

23. *Papio ursinus*, 'babianer' – 'apes or baboons' (1783:633, 1977:172) found near the Little Fish River.
24. *Giraffa camelopardalis*, 'camelopardalis' (1783:646-656, 1977:181-188). It was only known 'in those parts of the Cape colonies that lie the farthest towards the northwest.' Sparrman never saw the giraffe and his treatment here does not contain any new information.
25. *Felis serval*, which was mentioned before (1977:161) and also by Forster (1781) as *Felis capensis* (1783:659, 1977:189).

[40] Great Fish River at Cookhouse 32°45'S, 25°49'E

Panthera pardus, 'tyger' (1783:661, 1977:192).

'Ounce': Sparrman here distinguished 'the ounce of M.de Buffon' or 'L'once' in the Swedish edition (1783:662, 1977:193). He saw skins at the Cape. Some people called them leopards. They would live in mountains, be as large as the panther but the skin would be more shaggy with longer hairs and fewer spots. Buffon's description and plate (1767, IX:68) referred to *Panthera uncia* (Schreber, 1775) being the first (confused) account of that Asiatic cat (Rieger 1980). Sparrman probably saw skins of *Panthera pardus* or maybe *Acinonyx jubatus*?

[41] KoksKraal on the Great Fish River 32°37'S, 25°47'E

Hippopotamus amphibius, 'hippopotamus' (1783:681, 1977:205) hunted in this place, and at last Sparrman could catch a young one after shooting the mother. It is this calf which is described and depicted on the plate. A long account of the appearance follows (1783:693-702, 1977:212-220) A leech from its body was named *Hirudo capensis* by A Modeer.

Panthera leo, seen in this vicinity (1783:689,692, 1977:210-211).

Crocuta crocuta, a hyena was chased (1783:692, 1977:211).

Phacochoerus aethiopicus, a young wood-pig ('bosch-vark') was caught (l.c.)

Alcelaphus buselaphus, hartebeest (l.c.).

Syncerus caffer, buffalo (1783:703, 1977:221).

Tragelaphus strepsiceros, koedoe (l.c.).

[42] Little Fish river (see locality [37])

Taurotragus oryx, eland seen on different occasions (1783:704,707,710, 1977:222,223,225).

Diceros bicornis, rhinoceros seen on different occasions (l.c.).

Struthio camelus, nest of ostrich (1783:710, 1977:225).

Hippopotamus amphibius, sea-cow (l.c.)

[43] Quammedacka (see locality [36])

Diceros bicornis, the skulls of the rhinoceros specimens shot on 19 December 1775 were now, 6 February 1776, in good condition. The smaller one was taken. Another female with calf was seen (1783:713, 1977:227).

Hystrix africaeaustralis, 'eyster-varken' (1783:716, 1977:229).

Syncerus caffer, buffalo (1783:717, 1977:229).

[44] Kurekoiku (see locality [34])

Syncerus caffer, buffalo (1783:717, 1977:230).

Crocuta crocuta, hyena heard yelling (l.c.)

Alcelaphus buselaphus, hartebeest (l.c.)

Taurotragus oryx, eland (l.c.)

[45] Hassegai-bosch 33°22'S, 26°20'E

Taurotragus oryx, eland. A female was shot which was carrying a foetus. The latter was dissected (1783:718, 1977:230).

Alcelaphus buselaphus, hartebeest (l.c.).

Equus quagga, quaggas (l.c.)

[46] Sundays River (see locality [32])

Tragelaphus strepsiceros, koedoe (1783:720, 1977:232).

Hippopotamus amphibius, hippopotamus with calf riding on the back (l.c.)

[47] Kuga (see locality [30])

Syncerus caffer, buffalo (1783:721, 1977:232).

[48] Kraggakamma, between Klein Swartkops river and Van Staadens River c. 34°3'S, 25°25'E

Panthera leo, lion seen by others (1783:728, 1977:237)

Alcelaphus buselaphus, hartebeest (l.c.)

Syncerus caffer, 'thousands of buffaloes in lines one after another' (l.c.). An old specimen was shot and Sparrman drew a living calf.

[49] Mouth of Camtours River = Gamtoos River 33°55'S, 25°5'E

Hippopotamus amphibius, hippos were seen 'going out to sea with the tide' (1783:730, 1977:239).

Syncerus caffer, buffalo (1783:731, 1977:240).

Alcelaphus buselaphus, hartebeest (l.c.)

[50] Sitsikamma (see locality [25])

A number of snakes

?*Tetradactylus* sp., a serpent with 4 feet, probably '*Anguis quadripes* Linnaeus' (1783:733, 1977:241).

?*Achatina zebrina*, a land-snail '*Bulla achatina* L. ... varietas *livida* L.' (l.c.).

[51] Goree on Breede river (near Robertson) 33°48'S, 19°47'E

Pachydactylus geitje, a venomous lizard caught here (1783:747, 1977:251) described by Sparrman (1778d).

Another lizard was known:

1. ? *Lacerta capensis*, caught at Agter Bruintjes hoogte [39] and described (1783:749-750, 1977:253-254).

9.8 COLLECTIONS

One of the main objectives of Sparrman's journey was to collect plants and animals in order to enhance the accuracy of the *Systema Naturae*. While staying near the Cape in 1772, Sparrman had the opportunity to go botanising with Thunberg and to examine the local insects and plants. When he was about to board the *Resolution* heading to the Pacific, he stated in his *Voyage* (1783:89, 1975:109) that he sent specimens of insects and plants to 'Archiater Von Linné and other lovers of the science.' The remainder was left in Cape Town with Kirsten. To Linnaeus he sent at least some 360 plant specimens (Forbes 1977a:6) and probably included a few animals or their descriptions. On 2 May 1772 Sparrman wrote a letter to Linnaeus including (but now absent) the drawings of a 'Sepia' and a specimen of *Vespertilio*, an unidentified species of bat (Karsten 1957b:128). On 12 June 1772 he stated to have sent plants and insects and on 22 July 1772 he included the description of a monkey or 'Simia' (Karsten 1957b:131). He wrote again on 21 November 1772 hoping that Linnaeus had received 'one parcel

with plants, a case with insects and a bottle containing animals in spirits.' Linnaeus died on 10 January 1778 and apparently he did not publish any results based on Sparrman's material.

The evidence concerning the plants collected by Sparrman in South Africa in 1772 and 1775-1776 has been well summarized by Forbes (1977a:6-9). The zoological results of those periods have not yet been studied in detail. In the published account of his travels, Sparrman often referred to his collection of animals. He was always eager to add insects to his stores, but the species concerned are not identified in that publication (cf. Sparrman 1783:68, 382, 406, 471, 478; or 1975:92, 326 and 1977:23, 65, 68). The book was more specific about the mammals and the following list of species can be taken from the *Voyage*. All of these were said to have been 'brought home' to Sweden. The species names are mine based on the descriptions in the book. This list, of course, does not necessarily comprise all material taken home by Sparrman. These may be considered as accidental notes given when there was a chance in the narrative of the book. The names are listed in alphabetical order.

Mammals

Alcelaphus buselaphus: skin (1783:607, 1977:156).
Antidorcas marsupialis: stuffed skin (1783:484, 1977:73).
Aonyx capensis: skin (stuffed) obtained on Groot Doring river, locality [20] (1783:315, 1975:278).
Arctocephalus pusillus: stuffed skin of newly born (1783:31, 1975:60)
Canis mesomelas: several skins (1783:583, 1977:141)
Chrysochloris asiatica: specimen in spirits (1783:603, 1977:154).
Connochaetes gnou: skin (1783:533, 1977:103).
Diceros bicornis: horns of the larger specimen shot in Quammedagga and skull of the smaller one (1783:500, 713, 1977:82, 227).
Equus quagga: full grown foetus stuffed (1783:234, 1975:216).
Felis serval: 2 skins (1783:155, 1975:161).
Hippopotamus amphibius: skin of young, and tooth (1783:694, 1977:212).
Hyaena brunnea: skin (1783:171, 1975:171).
Hystrix africaeaustralis: foetus collected at Bot river (1783:182, 1975:179).
Loxodonta africana: grinder of 9 inches length, and tail of 1 foot length (1783:327, 347, 1975:288, 305).
Phacochoerus aethiopicus: head salted and dried (1783:414, 1977:29).
Tragelaphus scriptus: dressed skin (1783:283, 1975:254).

Reptiles

Lacerta capensis: one adult, 2 young specimens (1783:747, 1977:253).
Pachydactylus geitje: specimen of 3 inches length (1783:746, 1977:252).

To collect animals and transport them home is not an easy exercise. Sparrman twice was unlucky. On the return leg of his expedition, while climbing the Attaquas Kloof, his wagon overturned and he 'had the mortification of seeing my collection of natural curiosities trundle down the hill, in consequence of which they received considerable damage' (Sparrman 1783:737, 1977:244). After his return to Sweden, while still in the port of Gothenburg, a great part of his collection was damaged by fire 'which has been particularly fatal to my stuffed birds, having destroyed some which were not yet described' (Sparrman 1777a:42).

It cannot be reconstructed in detail how many zoological specimens Sparrman brought to Sweden at the end of his travels. He wrote to Thunberg on 27 March 1775 from Cape Town that he had 'a collection of birds stuffed or in spirits, which I intend to make known' (Karsten 1957a:58). On 15 March 1777 he wrote to George Forster that he had no intention to part with his plants and insects, except the duplicates (Leuschner et al. 1982:34). A little earlier, on 7 August 1776, he had mentioned that 'snakes and birds I have in great number but sometimes shortly described and I fear that they may not be in the best condition' (Leuschner et al. 1982:23). Maybe this was due to the fire in Gothenburg? Although Sparrman evidently kept many specimens himself, in the course of the years he sold or donated much of his collection. In the 1780's he parted with his animal specimens (mainly to the Kg.Vetenskaps Academien), in 1799 followed by the ethnographical objects (Söderström 1939:19). In 1815 some insects went to Paykull. When Sparrman died, however, he still had 97 bottles of animals in spirits, which were then bought by the Academy (Löwegren 1952:366).[8]

The various depositories of Sparrman's animals can be treated here.

1. Baron Charles De Geer (1720-1778), marshall of the Swedish court, had a collection of natural history specimens in Leufsta. Sparrman went to stay with him on his return to Sweden, as mentioned in his letters to George Forster of 27 March and 25 July 1777 (Leuschner et al. 1982:38, 44). It is not certain that Sparrman gave some specimens to De Geer; possibly, however, he at least presented some duplicates of insects. De Geer willed his cabinet and library to the Kg.Vetenskaps Academien. His insect collection is still preserved in the Naturhistoriska Riksmuseet in Stockholm and also contains some Linnaean types (Bryk 1949). De Geer described several species of insects collected by Sparrman in the 7th volume of his *Mémoires pour servir à l'histoire des insectes* pulished posthumously in 1778 (e.g. pp.605-666 with 72 species).

2. Johann Gustaf von Carlsson (1743-1801) had a large bird collection. Sparrman worked there in the 1780's which resulted in the *Museum Carlsonianum* (see 9.5). This book included descriptions of at least six birds collected by Sparrman. In 1801, the collection of birds was divided. About 100 of them went to the Kg.Vetenskaps Academien, some to Gustaf von Paykull (see below), while 185 specimens were bought by the Uppsala University (Thunberg 1811d). The first two collections later came together in the Riksmuseet in Stockholm (Whitehead 1978b:84). This museum still keeps Carlsson's specimens of *Nectarinia afra* and *Phalacrocorax capensis*.

3. The University of Uppsala preserves the large insect collection assembled by C.P.Thunberg in more or less its original state in the present zoological museum. Among the estimated 10.000 specimens, there are many from the Cape of Good Hope, and a few of those are labelled 'Sparrman' (Dr L.Wallin, in litt. 23.8.1983).

4. Gustaf von Paykull (1757-1826) bought some insects from Sparrman for 1000 rdlr. about 1815. He intended to have them

8. Sparrman also had a collection of Cape plants although it is unknown how many specimens it comprised or what happened to it (Forbes 1977a:6-9). A small glimpse is found in two letters to Thunberg written by A.F.Schweigger (1783-1821) of Königsberg. On 2 October 1813 he wrote 'Avant mon départ de Stockholm, j'ai fait la connaissance de Mr.Sparrman qui me dit, qu'il vous en verra sous peu son herbier. Je vous prie de me le faire savoir quand il sera prêt pour être vendû; je me propose de l'acheter en partie.' He wrote again on 20 February 1814 with a similar query, but Thunberg's answer is unknown and the correspondence did not continue (letters in Uppsala University Library, G 300 å).

engraved, but that project never materialised (Löwegren 1952:365). Paykull had also bought some birds from the collection of von Carlsson. His entire collection went to the Riksmuseet in Stockholm in 1819. If it included Sparrman specimens at that time, those are no longer recognised.

5. It should be recorded that, according to Farber (1982:62), the Zoological Museum in Copenhagen received 'a wealth of material from travellers like Anders Sparrman.' This is unlikely, because no Sparrman specimens are known to exist in this collection.[9]

6. The Kg. Vetenskaps Academien in Stockholm received most of Sparrman's specimens, either direct or from other collectors as mentioned above. Sparrman gave the ethnological objects from the Cape of Good Hope and the Pacific to the Academy in 1799; in 1935 they were incorporated in the Ethnographical Museum of Sweden in Stockholm, where they were described (Söderström 1936, 1939; Rudner & Rudner 1957). Sparrman probably gave the larger animal specimens to the museum of the Academy at an early date. There is a short list, undated, with details about the natural history specimens collected by Sparrman and kept in the Academy's museum. It is here translated from the Swedish.[10]

List of Natural History Specimens from the South Pacific, Caput Bonae Spei, Caffer- and Hottentot countries, Collected during a five year journey, undertaken by own means by Anders Sparrman, Med.Doct.
Plants and insects, a considerable number hitherto unknown, which he has arranged.
Preserved in spirits, Fishes, Birds, Snakes, many species from the Cape and Pacific.
Birds, mounted, from New Zealand, Otaheite, Cape &c.
Horns of rhinoceros, a new species of buffalo, koedoe, bushbok and eland.
Teeth of hippopotamus and elephant.
Skull of rhinoceros.
Penis in extended shape, of rhinoceros, preserved in spirits.
Vertebrae colli of rhinoceros.
Skins of hippopotamus calf (complete), rhinoceros, wildebeest and its calf (an unknown animal, half horse, half ox), hartebeest, eland, springbok - also anatomized.
Skins of lion, long-haired bear, calf of koedoe, tiger, wild striped horse mounted, southpole seal, zebra, honey fret, jackals.
Skin of ostrich, penguins, pelicans, magellan geese &c.

I cannot identify the long-haired bear (unless it was *Hyaena brunnea*?). The specimens which can be shown to have existed from this list have been indicated in Table 2.

The K.V.A. collection went in its entirety to the Naturhistoriska Riksmuseet in Stockholm. It has proved practically impossible to retrieve any of Sparrman's specimens in that vast museum. Probably many were discarded, but some may still exist. The available data are summarized in Table 2. The summary quoted above includes the skin of a lion, which would be a particularly rare specimen but it is not mentioned by Mazak (1975). It has been stated, for instance by Brinck (1955:17) that the mounted blue bock (*Hippotragus leucophaeus*) in Stockholm originated from Sparrman. Such a skin was never mentioned in any of the available records and the attribution must be discarded (Mohr 1967).

Table 2: List of zoological specimens brought back from South Africa to Sweden by Anders Sparrman. It mentions respectively the material mentioned in Sparrman (1783), in an undated list of the collection in the Kg. Vetenskaps Academien, Stockholm (KVA) and the species shown on plates in Sparrman's various publications. The animals are listed in systematic order.

Species	Sparrman 1783	KVA list	Plates
Chrysochloris asiatica	one in spirits	–	–
Canis mesomelas	several skins	skin	–
Aonyx capensis	skin	–	–
Mellivora capensis	–	skin	1777b
Hyaena brunnea	skin	? skin	–
Panthera pardus	–	skin	–
Panthera leo	–	skin	–
Felis serval	2 skins	–	–
Loxodonta africana	grinder, tail	tooth	–
Diceros bicornis[1]	skull, horns	skull, horns, skin, penis, vertebrae	1779d, 1783
Equus zebra	–	skin	–
Equus quagga[2]	foetus	skin	–
Phacochoerus aethiopicus	dried head	–	–
Hippopotamus amphibius	skin of calf, tooth	skin of calf, tooth	1783
Connochaetes gnou	skin	skins of calf and adult	1783
Alcelaphus buselaphus	skin	skin	1783
Antidorcas marsupialis	skin	skin	1783
Syncerus caffer	–	horn	1783
Tragelaphus strepsiceros	–	skin of calf, horn	–
Tragelaphus scriptus	skin	horn	1783
Taurotragus oryx	–	skin, horn	1783
Hystrix africaeaustralis	foetus	–	–
Rhabdomys pumilio	–	–	1784
Struthio camelus	–	skin	–
Spheniscus demersus	–	skin	–
Daption capense	–	skin	–
Phalacrocorax capensis[3]	–	skin	–
Lacerta capensis	3 specimens	–	–
Pachydactylus geitje[4]	specimen	–	1778d

1. Skull in Riksmuseet A 581572, cf. Zukowsky 1965:22
2. Foetus in Riksmuseet, cf. Rau 1974
3. Mounted skin in Riksmuseet A 558970
4. Type in Riksmuseet, cf. Loveridge 1947:350-351.

9. Apparently, Farber's source was Spärck (1945). In that volume, I could find no mention of Sparrman or De Geer or Thunberg. Dr N.O.Preuss (in litt. June 1987) could not give more data.

10. Original unknown, copied in Bergianska Brevsamlingen (vol. XVI, p.748-749) in K.V.A.Archives, now part of the Stockholm University Library. The text was quoted in full by Löwegren 1952:365.

CHAPTER 10

Carl Peter Thunberg

10.1 BACKGROUND

Thunberg was an important figure among the Cape explorers because he was a professional scientist, a strict follower of the classification methods introduced by Linnaeus and a prolific author. Most of his collections were preserved. He travelled to Japan in the 1770's but first stayed about two years at the Cape of Good Hope to learn Dutch and to examine the Cape flora and fauna. This resulted in a large collection both of plants and of animals including many insects. He presented all his specimens to the University of Uppsala, Sweden, where he was director of the museum and professor of natural history. He worked hard to review his collections and published many papers and books about them. These publications provide many valuable data, but they are not easy to use because they are rare and often only present extensive lists of animal or plant names.

Much attention has been paid to Thunberg as a botanist. His contributions to zoology are rarely mentioned. This emphasis is unfortunate because Thunberg was interested in both disciplines and published extensively in both areas. His publications about South African vertebrates are reviewed in 10.3-6 and those about his stay at the Cape and his expeditions into the interior in 10.4 and 10.8. There is not much manuscript material directly relating to his time in South Africa; his journals are not known. Some letters and later manuscripts are mentioned in 10.7 and his collections from the Cape are reviewed in 10.9.

10.2 BIOGRAPHY

The life of Carl Peter Thunberg (1743-1828) was dominated by the pleasures of taxonomic investigations and hence appears uneventful. He completed his studies in Sweden, travelled extensively in Europe, Africa and Asia between 1770 and 1779, and then stayed at home teaching and reviewing his collections. A full biography has not appeared, but there are many shorter notices written from various (but mainly botanical) angles, the most important of which include Agardh (1829, translated by Mohnike 1831), Zetterström (1822), Schröder (1832), Billberg (1832), Juel (1918), Karsten (1939a), and Rudner in Thunberg (1986: x-xix)[1].

Thunberg was born on 11 November 1743 in Jönköping, Sweden, the son of Johan Thunberg and Margaretha Starkman. His father died only a few years later and his mother remarried with the merchant Gabriel Forsberg. On 17 September 1761, Thunberg was enrolled at the University of Uppsala where he followed courses in theology, public law, philosophy, chemistry, theoretical and practical medicine. One of his teachers was Carolus Linnaeus who taught him the principles of botany and zoology including his natural system of classification. Thunberg always remained a most faithful follower of the Linnaean methods. He completed his medical studies by defending two dissertations, 'De venis resorbentibus' on 2 June 1767 under Linnaeus, and 'De Ischiade' on 28 June 1770 under Jonas Sidrèn, professor of anatomy and practical medicine. During his studies, Thunberg was supported by the Kåhres Stipendium and in 1770 he received a further 3300 daler from this fund to complete his studies in France.

Thunberg started his travels on 15 September 1770. On his way to Paris, he stopped in Amsterdam, arriving on 5 October 1770. Here he met Johannes Burman (1707-1779), professor of botany at Amsterdam's Athenaeum Illustre, and his son Nicolaas Laurens Burman (1733-1793). Burman knew Linnaeus well and Thunberg must have carried letters of introduction. Apparently impressed with Thunberg's botanical interests, the Burmans offered to arrange a collecting trip to the Far East. Meanwhile, Thunberg travelled via The Hague and Leiden to Paris where he arrived on 1 December 1770. He stayed there for some six months to visit the museums, gardens, public institutions; to follow courses and to meet others with corresponding interest like Bernard de Jussieu (1699-1777) and Etienne Louis Geoffroy (1725-1810). He received two letters from N.L.Burman dated 24 March and 30 May 1771 concerning the projected journey to Japan (Karsten 1939a:5).

On 18 July 1771 Thunberg was back in Amsterdam to complete the preparations of the voyage. He was to go to Japan because the flora there was completely unknown in Europe. He left Holland on 30 December 1771 with the rank of surgeon-extraordinary on board the V.O.C. ship *Schoonzigt* commanded by the Swedish captain Jan Rondecrantz. The various places visited only need to be mentioned here: Cape of Good Hope 16 April 1772 – 2 March 1775, Batavia (Java) May – 21 June 1775, the island Decima in Japan 14 August 1775 – 3 December 1776 (including a trip to Yeddo 4 March – 30 June 1776), Java 4 January – 7 July 1777, Ceylon July 1777 – 6 February 1778, Cape of Good Hope 27 April – 15 May 1778. He was back in Holland on 1 October 1778. The two visits to southern Africa are treated in more detail below.

1. There is much material available about Thunberg's life, including his own publications and correspondence. The Library of the University of Uppsala has a collection of biographical manuscripts and pamphlets, and another one is in the Library of the University of Stockholm donated by J.E.Wikström to the Kg.Vetenskaps Academien in July 1854. The period of travel is covered by Thunberg's own account of his published *Resa* or Travels (1788-1793) and by a short note in Thunberg (1823:7-10). His time in Japan was described in a booklet published by the Science Council of Japan and the Botanical Society of Japan in 1953 (Anon.1953) There is a wealth of shorter notices, most of them stressing the botanical achievements: Andersson 1919, Brinck 1955:18-24, Eloff & Labuschagne 1961:8-9, Eybers 1925:1-14, Fodstad 1982, Forbes 1946, 1965:25-36, Gilbert 1977:382, Grut 1974, Gunn & Codd 1981:347-350, Landin 1985, Lasègue 1845:67-70, MacOwen 1886:xxxvi, Mellin 1848:47-59, Norlindh 1969:226-228, 1975, I.Rudner in Thunberg 1986:x-xix, Selander 1960:43-53, Sommarström 1975, Stafleu 1971:152-153, Svedelius 1944a,b, Uggla 1945, Wallström 1983:113-120.

During his absence, on 15 June 1772, the University of Uppsala promoted Thunberg to Doctor in medicine, and on 31 May 1777 he was appointed to botanical demonstrator. He did not hear about this development until his return to Cape Town in April 1778, from a letter dated 5 December 1777 written by Peter Jonas Bergius (1730-1790): 'For God's sake, don't think of any further journeys, but rather think of your native country. It is necessary that you come home and undertake the office of Demonstrator [of Botany] at Upsala, as Arch. Linné is on the brink of the grave and mentally and nearly physiologically dead' (translated in Karsten 1939b:98). Thunberg, however, did not exactly rush home. He spent some 2½ months in Holland and then went to London where he met Joseph Banks, Daniel Solander, Jonas Dryander and J.R.Forster. He reached the Swedish shore on 14 March 1779.

The remainder of his long life Thunberg spent at the University of Uppsala. On 7 November 1781 he became *professor extraordinarius*, on 7 September 1784 ordinary professor of medicine and botany succeeding C.Linnaeus *filius*. He retained this job until the day of his death. On 8 April 1784 he married Brigitta Charlotta Ruda (1 August 1752-22 May 1813), but there were no children. Thunberg's personality was briefly stated in the words of Mohnike (1831:22): 'Der Charakter seines Innern war Freude, seines Aussern Lebhaftigkeit, sein Umgang Freundlichkeit.' Although his publications appear dull and dreary to the extreme, he was evidently well liked by the students. He died on 8 August 1828 in his country house Thunaberg at the age of 85. The funeral took place in Uppsala on 17 August and was well attended. Thunberg was a member of some 66 local and foreign societies and institutions. Before 1832 he was honoured in 8 zoological and 26 botanical scientific names (Billberg 1832:40).

10.3 BIBLIOGRAPHY

Thunberg was a prolific author. During his long career in Uppsala, he had a chance to study at least part of the available collections and to publish the results. Only part of his attention was directed to the plants. He was equally interested in insects and larger animals and his work reflects his endeavours to classify the species. His aim was to document the fauna and flora of different parts of the world. His task was enormous, as was his collection. This may have been one of the reasons why his publications lack in detail. Most of them consisted of checklists giving binominal names to all species recorded. If an entry concerned a new species, usually a short indication of its appearance and locality were added in the form of a diagnosis. This procedure makes his contributions rather inaccessible today because many names have changed and because a good number of his diagnoses are too short to satisfy today's standards of differentiation. Taxonomists certainly have no reason to dismiss Thunberg's work for any of these limitations. In cases of doubt, it is quite likely that the original specimens can still be retrieved in the collections preserved in Uppsala (10.9).

A second difficulty about Thunberg's published work is its rarity. Much of it appeared as 'dissertations', while other contributions were scattered through many journals, especially those of the Royal Academy of Sciences in Stockholm and of the Academy of St.Petersburg. Those were high ranking journals then, but now they are difficult to find in many libraries. Thunberg wrote either in Latin or in Swedish, which also does not promote accessibility.

There is no complete bibliography of Thunberg's contributions, and this desideratum cannot be amended here (if only for reasons of space). The botanical and general publications were discussed and listed by Karsten (1946b, 116 items) and by Juel (1918:24-34, 247 items), the entomological ones by Hagen (1863:229-233, 59 items) and those concerning South African insects by Muller & Rookmaaker (in press, 47 items). The total number of books, papers and pamphlets is likely to exceed 400 (Brinck 1955:24, Agardh 1829:259-267). In the following sections I shall deal with Thunberg's account of his travels, with his dissertations and with some smaller papers on South African mammals and birds.

10.4 THUNBERG'S RESA

Thunberg published a narrative account of his travels in Europe, Africa and Asia in Swedish. It appeared in 4 volumes between 1788 and 1793:

Resa uti Europa, Africa, Asia, förrättad Aren 1770-1779. Upsala, Joh.Edman. 8vo. 4 volumes: I (1788): xxvi, 390; II (1789): xxxii, 384; III (1791): xiv, 414; IV (1793): xxxvi, 342.

The book was dedicated to the Swedish king Gustaf III. The first and second volumes contained information about his stay at the Cape of Good Hope and about his expeditions into the interior. Karsten (1939c) gave an extensive extract of the contents based on a later English translation.

In the course of the book, Thunberg, a true disciple of Linnaeus, gave binominal names to the plants and the animals observed during the journey. In many cases, the descriptions are very brief, but some of the names have correctly entered zoological nomenclature.

At the end of volume I there are two unnumbered monochrome plates. The second showed some ethnographical objects, the first depicted 'Marmota africana' (= *Bathyergus suillus*). It was engraved by Ahl and it is also found in many of the later translations.

There were contemporary translations into German, French and English. A Japanese version appeared in 1928, and an abridged Swedish one in 1952 (Björck & Börjesson 1985:27)

German translations

There were two different German editions. The first appeared in 1792-1794 in 2 volumes (4 parts), translated by Christian Heinrich Groskurd:

Reise durch einen Theil von Europa, Afrika und Asien, hauptsächlich in Japan, in den Jahren 1770-1779. Berlin, Haude und Spener. 8vo. 2 volumes: I (1792): xx, 292, xviii, 267; II (1794): xvi, xii, 242, xii, 264.

The second German translation was abridged by Kurt Sprengel:

Reisen in Afrika und Asien, vorzüglich in Japan, während der Jahre 1772 bis 1779, auszugsweise übersetzt von Kurt Sprengel und mit Anmerkungen begleitet von Johann Reinhold Forster. Berlin, Voss. 8vo. 1792, 1 volume: viii, 230.

This edition appeared as the second part of volume VII of the *Magazin von merkwürdigen neuen Reisebeschreibungen* partly edited by J.R.Forster (see 6.4). The footnotes up to page 195 were contributed by Forster, the later ones by Sprengel (Hoare

1976:366). These notes contain a few zoological remarks given in 10.8.

French translations

There were two different French editions. The first only gives the text of vols.1-3 of the original Swedish.

Voyage en Afrique et en Asie, principalement au Japon, pendant les années 1770-1779, servant de suite au voyage de Sparrman. Paris, Fuchs. 8vo. 1794, 1 volume: xii, 532.

A second, more interesting translation appeared two years later:

Voyages au Japon, par le Cap de Bonne-Espérance, les îles de la Sonde &c. Paris, Benoît, Dandré, Garnery, Obré. An IV (1796). 8vo: 4 volumes, I: iv, lxiv, 418; II: x, 430; III: viii, 446; IV: xii, 462. 4to: 2 volumes, I: iv, xliv, 512; II: iv, viii, 554.

It was translated by L.Langles who added some footnotes. The natural history was revised and annotated by Jean Baptiste de Lamarck (1744-1829). These notes reflected Lamarck's understanding and did not add new details obtained from Africa. The first volume had 3 zoological plates accompanied by notes contributed by Lamarck (pp.348-351).

Pl. I 'Marmotte Africaine' or '*Arctomis africana*', a reversed copy of the engraving found in the original Swedish edition showing *Bathyergus suillus* (described by Lamarck, p.348).

Pl. II 'Mus Capensis' depicting *Georychus capensis*, a plate copied from Pallas (1779, pl.7) (described by Lamarck pp.349-350).



Fig. 83 Cape dune molerat *(Bathyergus suillus)* in Thunberg's travels, from the French translation of 1796 (pl.I).



Fig. 84 Cape molerat *(Georychus capensis)* in the French translation of Thunberg's travels (1796, pl.II).

Pl. III 'Mullus fasciatus' depicting a fish, described by Lamarck (p.351).

English translations

A contemporary English edition started to appear in 1793. It was translated by Charles Rivington Hopson (1744-1796) according to evidence discussed by V.S.Forbes in Thunberg (1986: xxv-xxviii). The title was:

Travels in Europe, Africa and Asia, made between the years 1770 and 1779. London.

There were 4 volumes. At first, vols. 1-3 were published in 1793 by W.Richardson and J.Egerton. Production was taken over by F. & C.Rivington, London, who printed volume 4 in 1795, a second edition of volumes 1-3 in 1795, a third edition of vol. 3 in 1795, and vols. 2-4 in 1796 (cf. Thunberg 1986:xxiii).

A recent new English edition appeared in the works of the Van Riebeeck Society (series 2, volume 17, 1986). It was partially based on the existing translation, but it was revised and corrected. It was edited by V.S.Forbes (cf. Forbes 1987). As none of the other editions are now easily available, my comments are presented with page references to this VRS edition (Thunberg 1986).

10.5 DISSERTATIONS

In the course of 50 years as professor at the University of Uppsala, Thunberg presided over a large number of graduation ceremonies. The dissertations or theses defended on those occasions bear the name of Thunberg as praeses and that of the student as respondent. There were a total of 294 such theses, as listed briefly by Marklin (1820:200-209, 1874:147-151). Most of them were short, rarely more than 10 pages. One major series of dissertations presented a catalogue of the natural history collection in Uppsala, the *Museum Naturalium* (10.5.4). The contents of the other dissertations were very diverse, medical, botanical and zoological. These small booklets are very rare today and complete sets are almost impossible to find.[2] A few only were reprinted by C.H.Persoon (1799-1801). Muller & Rookmaaker (in press) commented on those contributing to South African entomology.

10.5.1 *Authorship*

It has become an important question to establish who should be regarded as author of these dissertations. Until recently, the new zoological and botanical names found in these booklets have been attributed to Thunberg only. Of course, it has not been actually established to which extent the student was responsible for the contents (Schulze 1921). Amadon (in Stresemann & Amadon 1979:323), followed by Clancey et al. (1987:7), argued that the author of the only ornithological new name found in these dissertations (*Falco canorus*, see 10.5.2) should be Rislachi (the student) rather than Thunberg. This change is easy enough to bring into effect. However, if accepted by taxonomists, this may well result in an inevitable change of author of hundreds of established entomological and botanical names.

2. A complete set of all 294 theses was offered for sale in 1985 by Björck & Börjesson, Stockholm.

Thunberg never gave us a clue whether he regarded these theses as his own work or that of his students. Many of them appeared in series, one part continuing on a subject started in an earlier part. The presentation is very similar in all of them. I am not certain how valid it is to compare Thunberg with a parallel case. There is a similarly large series of dissertations defended at the University of Uppsala in the 18th century with Carolus Linnaeus in the chair. The title pages of those dissertations are very similar with an indication of Linnaeus as president and a student as respondent. Linnaeus regarded them as his own work. Most recent investigators agree that there is no reason not to credit Linnaeus alone for the work (e.g. Smit 1979, Wheeler 1979). The agreement, however, is not total. For instance, Röhrer-Ertl (1983) argued that the classification of apes found in one of the dissertations differed in so many ways from that presented by Linnaeus on other occasions, that the name of the orang utan had better be ascribed to the student.

In view of the uniform presentation found in the dissertations, Thunberg must have played a major role in their production. There is no clearcut answer to the question of authorship. There is no evidence to decide to attribute the work to Thunberg, or to the student, or to both. Considering the uncertainty and the far-reaching consequences, I propose that for taxonomic purposes Thunberg should be regarded as the sole author.

10.5.2 *Falco canorus*

Among the zoological dissertations, there is only one about a South African species. The title is as follows:

Falco canorus, quem venia experient.facult.med.Ups. praeside Carol. Pet.Thunberg . . . publico submittit examini auctor Gabriel Rislachi, Stip.ness.Fenno. in audit.botan.d.XXIII Decembris MDCCXCIX. Upsaliae, litteris Joh.Fred.Edman, pp.[i-ii], 1-8.

It was reissued by Persoon (Thunberg 1801,III:264-272). This contains the first scientific description of the Pale chanting goshawk, *Melierax canorus* (Thunberg, 1799) as first noted by Winterbottom (1971:66) and followed by Clancey (1972:167, 1980:42). Their reference was to Persoon's reprint with the date 1799, which was corrected by Rookmaaker (1986b). The supposed change of authorship of the name has been discussed in 10.5.1. The student probably was Gabriel Gamaliel Rislachi (1764-1808), later a medical doctor in Stockholm who had a nice collection of birds (Löwegren 1952:362).

The dissertation was dedicated to Gustaf von Carlsson. The specimen described here was present in the latter's collection, but its origin was unknown: 'De patria & moribus ejus nihil certi affirmare possumus, quippe cum Illustriss. ipse a Carlson sibi in memoriam revocare non potuit, unde hunc Falconem acceperit' (p.2: 'We could not learn much about its locality or habits, because Mr.Carlson himself could not remember where he had obtained this falcon'). The specimen in Carlsson's collection, obviously the type, is not mentioned again in later records. It was not listed among the 185 specimens which Thunberg obtained for the University of Uppsala from Carlsson's legacy in 1801 (cf. Thunberg 1811d).

Falco canorus was not based on a description by Levaillant. However, Thunberg compared the specimen in Stockholm with 3 birds described by Levaillant in the *Oiseaux d'Afrique*, i.e. no. 27 'Faucon chanteur', no.31 'l'Acoli' and no.33 'le Gabar'. Thunberg supposed that his specimen could be the same species as the 'Faucon chanteur', while the 'acoli' would be its female and the 'gabar' belonged to another, smaller species.

10.5.3 *Museum Naturalium Academiae Upsaliensis*

This catalogue of the collection in Uppsala appeared as a long series of installments serving as dissertations to Thunberg's students. As such, the comments in 10.5.1 also apply here. The *Museum* was divided in two series: the *Museum* itself appearing in 33 parts between 1787 and 1821, and its *Appendix* appearing in 26 parts between 1791 and 1819. In 1827 two further unnumbered parts were added. Each installment had about 10 pages, but the numbering is confused. Sometimes the parts were paged separately, others continued on earlier issues, in which some errors were made. It will be seen that the *Museum* and the *Appendix* were issued concurrently although the division of subjects is not immediately apparent.

The catalogue enumerated the species present in the collection, both plants and animals, according to the donor. Typically, each part consisted of a long list of binominal names, usually without any explanation, sometimes accompanied by a short diagnosis or footnote. There were a few plates, mainly depicting insects, and all of inferior quality. This makes the *Museum* a document which is difficult to use. It takes time to understand its composition and one needs to persist to retrieve the name of a particular species. Even to find one is not always helpful, because there is no information where the animal had been collected or which part was represented in the collection (skin, skeleton?). Muller & Rookmaaker (in press) listed the Cape insects, and the names of South African vertebrates are mentioned in 10.9.

One may wonder to which extent the *Museum* is a complete catalogue of the specimens available to Thunberg. The coverage may not be equal in each class of animals or plants and it is likely to be better in case of the larger animals than that of the invertebrates. One could assume that especially for the lesser known animals, the species were listed as far as they had been revised. This is immediately clear from the insects present in the catalogue, because it excluded the species described by Thunberg in papers of 1818 and later.

The various parts of the *Museum* have never been listed. Dryander (1798,I:233-234) gave details of parts 1-22 and appendix 1-5. Hagen (1857, 1863:220-221) gave details about the entomological parts. All parts will be listed here providing part number, name of the student (respondent), date, pages and a brief description of contents where necessary.

Museum Naturalium Academiae Upsaliensis, praeside Carol. Pet. Thunberg (Upsaliae, Edman):

1 Fridericus Wilhelm Radloff, 14 April 1787, pp.1-16
– It starts with a general introduction. List of animals donated by Carolus Gryllenborg (1744), Adolphus Fridericus (1745) and Claudius Grill (1747).

2 Laur.Magn.Holmer, 14 April 1787, pp.17-32
– Animals donated by Magnus Lagerstroem (1748), Jona Alströmer and Carolus à Linné (1749); the latter two donations could not be separated by the author as they had not been catalogued before. It contains '*Rallus capensis*' sent from the Cape of Good Hope to Linnaeus in 1774. This is followed (p.24) by 9 specimens of animals which had lived in the Hortus Botanicus and which were added to the museum after their death. The list of specimens donated by Carol.Petr.Thunberg in '1775' started on p.25 listing some mammals, birds, amphibia and fishes.

3 And.Gustav.Ekeberg, 21 June 1787, pp.i-ii, 33-42
– Donatio Thunberg, first continuation: insects. The insects continue from this part to part 7.
4 Petrus a Bjerken, 19 December 1787, pp.i-ii, 43-58, 1 pl.
5 Olavus Galen, 5 December 1787, pp.i, 59-68.
6 Carolus Gustavus Schålen, 17 May 1788, pp.i-iv, 69-34, 1 pl.
7 Johannes Branzell, 7 March 1789, pp.i-iv, 85-94.
8 Carolus Enricus Rademine, 13 June 1789, pp.i-iv, 95-106, i
– Donatio Thunberg: Vermes or invertebrates. This concludes the list of animals as the following parts contained plants. The animals are continued in Appendix 1 and following, which appeared even before part 9 of this series.
9 Johannes Martinus Ekelund, 30 March 1795, pp.i, 133-140, i-ii
– This part followed Appendix 2 in time and the pages follow those explaining the gap between parts 8 and 9. Parts 9 to 22 constitute continuations 7-20 of the Thunbergian donation listing plants.
10 Haraldus Kugelberg, 23 November 1791, pp.i-ii, 141-164
11 Johannis Petrus Sjöberg, 11 June 1792, pp.i-ii, 165-174
12 Carolus Alexander Lindbladh, 8 December 1792, pp.i-ii, 93-102
– I cannot exlain the jump in pagination. It must have been an error, perpetuated in the following parts.
13 Nicolaus Ferelius, 20 December 1792, pp.i-iv, 103-110
14 Nicolaus Mathesius, 21 December 1793, pp.i-ii, 111-120
15 Magnus Hedren, 16 April 1794, pp.i, 121-130
16 Sven Algûren, 19 June 1794, pp.i-ii, 132-139
17 Gabriel Sandsten, 10 December 1794, pp.i-ii, 140-153
18 Carolus Zetterström, 17 December 1794, pp.155-162
19 Sveno Ericus Albom, 10 June 1796, pp.i-iv, 165-172
20 Carolus Nordblad, 10 June 1796, pp.173-186
21 Johannes G.Berndtson, 3 March 1797, pp.i-ii, 185-102 (=202)
22 Georg. Wahlenberg, 3 May 1797, pp.i, 208-227
23 Jacbus Wilhelmus Rudolphi, 23 May 1804, pp.i.ii, 1-12
– The start of the donation by Gustavus Adolphus (1803) listing a few mammals (including '*Felis leo*, jun.male') and insects.
24 Joh.Gustavus Hentzell, 30 May 1804, pp.1-12
– Donatio Gustavus Adolphus, continuation 1, listing shells
25 Christianus Lewin, 2 June 1804, pp.i-ii, 1-8
– Donatio Gustavus Adolphus, continuation 2, the herbarium of Hasselquist.
26 Sveno Abrah. Westman, 17 April 1805, pp.1-8
– Donatio Gustavus Adolphus, cont.3, the herbarium of Kalm.
27 Ericus Hasselhun, 18 April 1810, pp.1-8
– Donatio Gustavus Adolphus, cont.4 listing plants and animals collected by Kalm in North America. It also contained specimens from other places like a molar of an Asian elephant, hippopotamus teeth, rheebock horn, 6 rhinoceros horns, etc.
28 Gustavus Elgström, 4 December 1811, pp.i, 1-8
– A review of Swedish ornithological travellers, and a list of birds bought from Johann G. von Carlsson (see 9.5).
29 Zacharias Sjoström, 26 May 1819, pp.i-iv, 1-8
– Donation by Westinianus (1815-1819) of mammals, birds, insects and plants.
30 J.E.Åkerman, 5 June 1820, pp.i-ii, 1-8
– Donation of King Carolus XIII (1815) of shells, continued in parts 31 and 32, concluded in part 33.
31 Nicol.Joh.Ljunberg, 29 November 1820, pp.i, 9-18
32 Adolphus Fridericus Altahr, 6 December 1820, pp.i-iv, 18-25
33 Canutus Ludovicus Altahr, 23 May 1821, pp.i-iv, 1-8
– After the shells, it gives a small donation by Queen Hedviga Elisabel Charlotta of *Papilio* species, and one by Joseph Franciscus Oscar of insects. The part concluded with an 'Appendix ad Museum Academiae' and 'Appendix ad Vestinianum'.

Museum Naturalium Academiae Upsaliensis - Appendix, praeside Carol.Pet. Thunberg (Upsaliae, Edman)
Appendix no.

1 Jonas Lundelius, 9 February 1791, pp.i-ii, 111-121
– Donatio Thunberg listing mammals, birds, fishes and insects.
2 Hans Yman, 20 April 1791, pp.i-ii, 122-130
– Donatio Thunberg, listing insects, continued in part 3
3 Petrus J.Aspelin, 18 December 1794, pp.i, 131-144
4 Petrus Sundberg, 23 November 1796, pp.i-ii, 145-150
– Donatio Thunberg listing mammals, birds and insects.
5 Ericus Gadelius, 3 March 1797, pp.i-ii, 103-108
– Donatio Thunberg, listing plants.
6 Johannes Ericus Forsström, 21 June 1798, pp.i-iv, 111-118
– Donatio Thunberg listing mammals, birds, fishes and insects.
7 Laurentius Fred.Gravander, 11 December 1798, pp.i-ii, 119-126
– Donatio Thunberg, listing plants, which is continued in parts 8 to 14.
8 Ericus Magnus Juhlin, 12 November 1800, pp.i-ii, 127-138
9 Carolus Ericus Wulf, 3 April 1806, pp.i-ii, 1-8
10 Jonas Rudin, 24 May 1806, pp.i, 1-8
11 Petrus Elgström, 6 December 1806, pp.i, 1-10
12 Carolus Netherwood, 10 December 1806, pp.i-ii, 1-8
13 Ericus Gustavus Groth, 12 December 1806, pp.i-iv, 1-8
14 Joh.Wilh.Dalman, 10 December 1807, pp.i-iv, 1-8
15 Jon Jacobi, 24 March 1808, pp.i-ii, 1-7
– Donatio Thunberg listing mammals, birds, fishes, amphibia and invertebrates.
16 O.A.Robsahm, 1 June 1808, pp.i-iv, 1-7
– Donatio Thunberg listing plants continued in parts 17-23.
17 Andreas Olavus Hall, 22 March 1809, pp.i-ii, 1-8
18 Ericus Nensen, 10 May 1809, pp.i-ii, 3-8
19 Gustav.Jacob Örtenblad, 3 December 1812, pp.i-iii, 1-6
20 Noachus Hedrèn, 3 December 1812, pp.i-ii, 1-6
21 J.E.Wikström, 26 May 1813, pp.1-20
22 Petrus Christoph.Westring, 23 November 1814, pp.i, 21-34
23 Petrus Adamus Staf, 13 June 1816, pp.i-iv, 23-30
24 Olavus Sjöstrand, 8 June 1818, pp.i-iv, 30-37
– Donatio Thunberg listing mammals and birds.
25 Ericus Adamus Lideen, 10 June 1818, pp.i-iv, 38-41
– Donatio Thunberg, listing plants
26 Olavus Wilhelmus Flodstedt, 10 March 1819, pp.i-ii, 44-53.
– This was part 'ult.' (= last). It concluded the Donatio Thunberg listing plants. On the last page there is a list of the number of specimens included in Thunberg's gift (see 10.9).

Museum Naturalium Academiae Upsaliensis Auctum, praeside C.P.Thunberg (Upsaliae, Palmblad & Co.)

1 Johannes Petrus Wilson, 3 March 1827, pp.i-iv, 1-10
– List of several donations, by M.F.Brake (1820), C.Hauswolff (1823) and C.P.Forsberg (1823). The latter included birds, plants and mammals, e.g. *Hyaena brunnea* (p.6).
2 Joh.Jac.Leufstedt, 28 March 1827, pp.i-ii, 11-18
– The donatio Forsberg continued listing plants.

10.6 SHORT CONTRIBUTIONS ON SOUTH AFRICAN ANIMALS

10.6.1 *Thunberg (1784): The genus Loxia*

In this small paper, Thunberg listed the finches of the Cape region with short Swedish descriptions. There were 5 species:

Loxia sulphurata, 'geelvink'; presently *Serinus sulphuratus*.
Loxia astrild, 'roodbeckjes'; presently *Estrilda astrild*.
Loxia capensis, 'svarte vink'; presently *Euplectes capensis*.
Loxia orix, 'goudvink' or 'roode vink'; presently *Euplectes orix*.
Loxia caffra, 'langstaartvogel'; presently *Euplectes pogne*.

10.6.2 *Thunberg (1811a): Antilope monticola*

Apparently Thunberg worked on a classification of South African mammals in 1810-1811. This resulted in two papers describing new species and a more comprehensive revision. In one of these papers (1811a), Thunberg mentioned that African

mammal specimens were available in various collections when he went to Africa. The museum in Paris had a stuffed zebra brought by De la Caille, in Haarlem there were several antelopes and a lion, in Leiden a small giraffe, in The Hague a large hippopotamus, tapir and wildebeest, and in Levers Museum in London many monkeys.

Thunberg listed the known Cape antelopes, some with reference to the contributions by Allamand to Buffon's *Histoire Naturelle*, as follows: [A. = *Antilope*]

Thunberg's name	Reference in Allamand	Present name
A.orix (pasan)	1778, pl.62	*Oryx gazella*
A.leucophaea (tzeiran)	1778, pl.63	*Hippotragus leucophaeus*
A.strepsiceros (condoma)	1778, pl.61	*Tragelaphus strepsiceros*
A.oreas (canna)	1781, pl.7	*Taurotragus oryx*
– (ourebi female)	1781, pl.12	*Ourebia ourebi*
– (rit-bock)	1781, pl.13, 14	*Redunca arundinum*
– (boschbock)	1781, pl.15	*Tragelaphus scriptus*
– (bontebock)	1781, pl.16	*Damaliscus dorcas*
A.dorcas (bubale)	–	*Alcelaphus buselaphus*
A.pugarga (gazella à bourse)	1778, pl.60	*Antidorcas marsupialis*
– (klipp-springer)	–	*Oreotragus oreotragus*
A.capreolus (rhebock)	–	*Pelea capreolus*
A.capensis (sten-bock)	–	*Raphicerus campestris*
A.nictitans (duiker)	–	*Sylvicapra grimmia*
A.melanotis (greisbock)	–	*Raphicerus melanotis*
A.monticola (orebi male)	–	*Philantomba monticola*

The last five names in this list are given without description, hence *nomina nuda*, except *A.monticola* which is the subject of Thunberg (1811a). The colour, legs, horns and other external characteristics are described. The body would be 30 inches (75 cm) long and 15 inches (37,5 cm) high. The horns measured about 2 inches (5 cm) and the tail had the same length. The description was accompanied by plate V (left side). From the list of antelopes given above, it is clear that Thunberg saw a skin of a male. The specimen is listed in the *Museum* Appendix XXIV (Thunberg 1818b:30): '*Antilope monticola* male'. It is not known to be preserved in the Uppsala museum.

10.6.3 *Thunberg (1811b): Viverra felina*

This is a straightforward description of *Viverra felina* accompanied by a plate. The name is now used in the combination *Genetta genetta felina* (Thunberg, 1811) for the South African subspecies of the small-spotted genet. The plate depicted the type specimen, and it is the iconotype following Schlawe (1981:121). It was an obviously stuffed specimen which was in the museum in Uppsala (Thunberg 1818b:30).

10.6.4 *Thunberg (1818a): Tetrapteryx capensis*

This is a description of the blue crane, now called *Anthropoides paradisea* (Lichtenstein, 1793). Thunberg brought 2 specimens from the Cape, one was given to Paykull, the other was preserved in the Uppsala museum and recorded by Thunberg (1818b:32).

10.6.5 *Thunberg (1820): Hyaena brunnea*

This was the first description of the brown hyena, *Hyaena brunnea* Thunberg, 1820. The plate shows a stuffed specimen. It is not known which specimen this was, as Thunberg did not bring one from South Africa (it is not listed in 1811c). Maybe it was given to the Uppsala Museum by C.P.Forsberg, although his donation was dated to 1823 (Thunberg 1827:6).

10.6.6 *The Mammalia Capensia (1811c)*

This was intended as a major revision of the known South African mammals published in 1811 (Thunberg 1811c). I discussed this important paper in some detail in Rookmaaker (1988b). Thunberg gave short descriptions and references to 59 Cape mammals including 2 domestic species. All are provided with a binominal name. The species are listed below. At the end of this paper, Thunberg (1811c:322-323) presented an enumeration of the species present in the Uppsala museum, probably all brought to Europe by himself. He listed 36 species represented by 41 specimens (38 skins, 3 skulls). The species mentioned in this list are indicated in the enumeration of species below by the addition of *. This means that there was a skin, sometimes two skins, except in the case of three species only represented by a skull: *Myrmecophaga capensis*, *Hippopotamus amphibius* and *Bos caffer*.

Thunberg only included one species said to be new, 'nova species'. It was a rodent not present in the collection in Uppsala, called *Arctomys vigil*. It was found that this is the earliest description of Brant's whistling rat, *Parotomys brantsii* (A.Smith, 1834). The name given by Thunberg was never again mentioned in the literature, for which reason the preservation of *P.brantsii* and the suppression of *Arctomys vigil* was requested at the International Commission for Zoological Nomenclature (case 2605, Rookmaaker & Meester 1988).

The 59 species discussed by Thunberg (1811c) were the following:

Thunberg's name	Present name
1 Simia sphinx (p.301)*	Papio ursinus (Kerr, 1792)
– There were skins of a male and a female in the museum.	
2 Simia sabaea (p.301)*	Cercopithecus aethiops (L., 1758)
3 Myrmecophaga capensis (p.301)*	Orycteropus afer (Pallas, 1766)
4 Canis aureus (p.302)*	Lycaon pictus (Temminck, 1820)
5 Canis mesomelus (!) (p.302)*	Canis mesomelas Schreber, 1778
6 Hyaena maculata (p.302)	Crocuta crocuta (Erxleben, 1777)
7 Felis leo (p.303)*	Panthera leo (L., 1758)
– There were skins of a male and female in the museum.	
8 Felis pardus (p.303)*	Panthera pardus (L., 1758)
9 Felis jubata (p.304)*	Acinonyx jubatus (Schreber, 1775)
10 Felis capensis (p.304)*	Felis serval (Schreber, 1776)
11 Felis chaus (p.304)*	Felis lybica (Forster, 1780).
– There were skins of a male and female in the museum.	
12 Felis caracal (p.304)*	Felis caracal Schreber, 1776
13 Viverra tetradactyla (p.305)	Suricata suricatta (Schreber, 1776)
14 Viverra ichneumon (p.305)*	Herpestes ichneumon (L., 1758)
15 Viverra grisea (p.305)*	idem ?
– Both 14 and 15 are now taken together as the South African	

Thunberg's name	Present name

subspecies *Herpestes ichneumon cafer* (Gmelin, 1788). I am uncertain, because Thunberg had 2 skins which differed slightly. Roberts (1951:135) stated that Thunberg's *Viverra grisea* was an Asiatic species, which cannot be true unless Thunberg mixed up the locality connected with the skin in Uppsala.

Thunberg's name	Present name
16 Viverra barbara (p.306)*	? Atilax paludinosus (Cuvier, 1829)

– *Mustela barbara* L., 1758 is now referred to the South American *Eira barbara*. Thunberg's description could point to the species mentioned.

Thunberg's name	Present name
17 Viverra tigrina (p.306)*	Genetta tigrina (Schreber, 1776)
18 Viverra felina (p.306)*	Genetta genetta felina (Thunberg 1811)

– The usual and acceptable reference to this name is the separate paper by Thunberg (1811b)

Thunberg's name	Present name
19 Viverra zorilla (p.306)*	Ictonyx striatus (Perry, 1810)
20 Meles mellivora (p.306)*	Mellivora capensis (Schreber, 1776)
21 Talpa asiatica (p.307)	Chrysochloris asiatica (L., 1758)
22 Hyrax capensis (p.307)*	Procavia capensis (Pallas, 1766)
23 Arctomys maritimus (p.307)*	Bathyergus suillus (Schreber, 1782)
24 Arctomys capensis (p.308)*	Georychus capensis (Pallas, 1779)
25 Arctomys vigil (p.308)	Parotomys brantsii (A.Smith, 1834)
26 Lepus cuniculus (p.309)	Oryctolagus cuniculus (L., 1758)
27 Lepus capensis (p.309)	Lepus capensis (L., 1758)
28 Dipus caffer (p.309)	Pedetes capensis (Forster, 1778)
29 Sciurus capensis (p.309)	Xerus inauris (Zimmermann, 1780)
30 Hystrix cristata (p.310)*	Hystrix africaeaustralis Peters, 1852
31 Camelopardalis giraffa (p.310)	Giraffa camelopardalis (L., 1758)
32 Antilope oreotragus (p.311)	Oreotragus oreotragus (Zimmermann, 1783)
33 Antilope capreolus (p.312)	Pelea capreolus (Forster, 1790)
34 Antilope nictitans (p.312)	Sylvicapra grimmia (L., 1758)
35 Antilope melanotis (p.312)	Raphicerus melanotis (Thunberg, 1811)
36 Antilope campestris (p.313)	Raphicerus campestris (Thunberg, 1811)

– The current names for the grysbok and steenbok are based on this description by Thunberg. These are the first valid names, but not the first descriptions with binominal names (Rookmaaker, 1988c)

Thunberg's name	Present name
37 Antilope oryx (p.313)*	Oryx gazella (L., 1758)
38 Antilope leucophaea (p.313)*	Hippotragus leucophaeus (Pallas, 1766)
39 Antilope orcas (p.314)	Taurotragus oryx (Pallas, 1766)
40 Antilope eleotragus (p.314)*	Redunca arundinum (Boddaert, 1785)

– The skin in the museum was that of a male.

Thunberg's name	Present name
41 Antilope monticola (p.314)*	Philantomba monticola (Thunberg 1789)
42 Antilope sylvatica (p.315)*	Tragelaphus scriptus (Pallas, 1766)
43 Antilope maculata (p.315)*	Damaliscus d.dorcas (Pallas, 1766)
44 Antilope pygarga (p.315)*	Antidorcas marsupialis (Zimmermann, 1780)
45 Antilope dorcas (p.316)*	Alcelaphus buselaphus (Pallas, 1766), subsp.caama (G.Cuvier, 1804)
46 Antilope strepsiceros (p.317)*	Tragelaphus strepsiceros (Pallas, 1766)

– There were skins of an adult and young in the museum.

Thunberg's name	Present name
47 Ovis aries: capensis (p.317)	domestic sheep
48 Bos caffer (p.318)*	Syncerus caffer (Sparrman, 1779)
49 Bos gnu (p.318)*	Connochaetes gnou (Zimmermann, 1780)
50 Bos indicus (p.319)	domestic cow
51 Equus zebra (p.319)*	Equus zebra L., 1758

Thunberg's name	Present name

– There were skins of an adult and young in the museum.

Thunberg's name	Present name
52 Equus quagga (p.319)	Equus quagga Boddaert, 1758
53 Sus africanus (p.320)	Potamochoerus porcus (L., 1758)
54 Sus aethiopicus (p.320)	Phacochoerus aethiopicus (Pallas, 1766)
55 Rhinoceros bicornis (p.320)	Diceros bicornis (L., 1758)
56 Elephas africanus (p.320)	Loxodonta africana (Blumenbach, 1797)
57 Hippopotamus amphibius (p.321)*	Hippopotamus amphibius L., 1758
58 Phoca antarctica (p.321)	Arctocephalus pusillus (Schreber, 1775)

– There is no description, only a locality: 'mare australe inhabitat.' Meester et al (1986:99) said it was a *nomen nudum*.

Thunberg's name	Present name
59 Phoca leonina (p.322)	?Mirounga leonina (L., 1758)

10.7 MANUSCRIPTS

The library of the University of Uppsala preserves many manuscripts relating to the life and work of Thunberg, especially the correspondence which he received and a large collection of notes on many subjects. The zoological museum in Uppsala keeps several manuscript catalogues compiled by Thunberg of the zoological specimens present in that museum (Holm 1957).

10.7.1 *Thunberg's correspondence*

The letters received by Thunberg are bound in 36 volumes arranged alphabetically by name of correspondent. The letters written by Thunberg are not included here or elsewhere in the library unless they were first drafted. I have been able to study this collection for some days, during which time I have tried to find references to Thunberg's zoological activity at the Cape of Good Hope or later while in Sweden. This was used in the course of this book wherever applicable. Much of the correspondence is concerned with requests for specimens or publications. If one correspondent wrote several letters, it is often true that the first one was in Latin, followed by others in the vernacular of that person. Thunberg obviously liked the use of those languages better. The range of correspondents is very wide and they cannot be listed here. A few of the letters in this collection have been published in full or in summary. Although no special search was made, the following instances were noted.

Abraham Bäck (1713-1795) to Thunberg, 2 letters of 1774, 1780 summarized by Karsten (1939b:92, 103).

Bengt Bergius (1723-1784) to Thunberg, 18 December 1781, in Karsten (1939b:99-100).

Peter Jonas Bergius (1730-1790), 47 letters to Thunberg written between 1771 and 1790, summarized by Karsten (1939b:93-101).

Nicolaas Laurens Burman (1733-1793), 19 letters to Thunberg written between 1771 and 1793, partly translated and summarized in Karsten (1939a:5-9).

N.L.Burman Jr. (1782-1812), 7 letters to Thunberg written between 1820 and 1824, quoted or summarized by Karsten (1939a:9-18).

George Forster to Thunberg, letters of 1788 and 1789, reproduced in Müller (1977:309-312).

D.F.Immelman, letters of 1779 and 1781, mentioned in 10.9.

Carolus Linnaeus, letters of 17 June and 29 October 1773, one undated, and one of December 1774, in Karsten (1939b:88-91), Fée

(1832:196-219).

Martinus van Marum (1750-1837), letters to Thunberg written between 1792 and 1806, of which Karsten (1939a:19-21) reproduced those of 14 May 1792 and 15 June 1795; the latter is again found in Lefebvre & de Bruyn (1976:347-348).

Francis Masson, see chapter 8.

William Paterson, see chapter 11.

Only a few of Thunberg's own letters are known to exist. A few were quoted in the literature.

Thunberg to George Forster, 22 November 1788 and 22 December 1789, in Huber (1829,II:789-793).

Thunberg to C.G.Gjörwell, librarian, 4 January 1785, in the introduction of Hornstedt (1888:81-82)

Thunberg to M.van Marum, 29 October 1795, in Lefebvre & de Bruyn (1976:348-349).

Thunberg to Thomas Pennant, 15 April 1783, in Forbes (1979).

10.7.2 *Collection of notes*

The main library of the University of Uppsala contains a collection of 'Thunbergiana', 26 boxes with notes, manuscripts, papers and reprints on different subjects including biography, zoology, botany, medicine and economy. One of these boxes (D 23:4) is entitled 'Fauna Capensis, Ornithologia, &c.' The contents mostly pertain to zoology, including quite a few different subjects. There are drafts for Thunberg's papers, like the revision of Cape mammals (1811c) and the description of *Antilope monticola* (1811a) with manuscript name '*A.brachycera.*'

Most interesting at present are several lists which together intended to provide an enumeration of Cape animals 'Enumeratio Animalium Capensium.' These are lists of names only without any description and rarely otherwise annotated. That of mammals (3 pp) is very much like the published one (Thunberg 1811c) although some domestic animals are included, and the aquatic mammals are listed as follows: '*Trichaechus dugong*?, *Phoca* ... , *Delphinus orca*?, *Balaena mysticetus*?' In the published version (see 10.6.6) two species of *Phoca* are named and the whales are deleted. The list includes *A.monticola* and it may have been prepared about the same time as the published revision (c. 1810).

There are also long lists of insect species, together with some 17 pages of names, which cannot now be reviewed. The impression was that most of the names used correspond with those in Thunberg's entomological publications, but with several changes or additions. It is possible that all these lists including the ones on birds and lower vertebrates discussed below were intended to be published as some kind of checklist. During the years 1822-1823, Thunberg wrote and published several of such geographical lists, for instance giving the species known to live in Japan, Suriname, Brasil and China.

10.7.3 *A list of birds*

There is an enumeration of 5 pages of 'Aves Capensis' followed by Amphibia and Pisces. In many cases it is difficult to be sure which animal was meant by Thunberg, because we only have a name to go by. Thunberg often used names given by Linnaeus or Gmelin which were later only referred to European species while the African ones were differentiated. This list of birds is presented here with attempts of providing the current names for the species. The order is the one used by Thunberg. Some of the species were mentioned in various parts of the *Museum* (see 10.9) which is here indicated by a * after the name as was done with the mammals in the preceding paragraph.

AVES CAPENSIS

Thunberg's name	Current name
Vultur percnopterus	Neophron percnopterus
Falco serpentarius[3]	Sagittarius serpentarius
F parasitus	Milvus migrans parasitus
F ? tinnunculus*	Falco tinnunculus rupicolus
Strix	Bubo sp. or Tyto sp.
Lanius forficatus	–
L collaris (fiskal)	Lanius collaris
L ferrugineus	Laniarius ferrugineus
Psittacus capensis	–
Corvus hottentottus	Corvus capensis
C albicollis	Corvus albicollis
C domicella (Houtniquas)	Corvus capensis
Coracias caffra	Coracias garrulus
Oriolus capensis	Oriolus oriolus
Gracula carunculata	Creatophora cinerea
Bucco capensis	? Tricholaema leucomelas
Buceros africanus	Tockus sp.
Cuculus capensis	Cuculus gularis
C serratus	Clamator jacobinus serratus
C ater	Clamator j. jacobinus
C indicator	Indicator indicator
C persa (Houtniqua)	Tauraco corythaix
C auratus	Chrysococcyx caprius
Picus aurantius*	–
P capensis	Mesopicos griseocephalus
P caffer	–
P olivaceus	Geocolaptes olivaceus
Sitta caffra	–
Alcedo capensis*	–
A ispida*	–
A rudis	Ceryle rudis
Merops apiaster*	Merops apiaster
M caffer	Promerops cafer
Upupa epops	Upupa epops
U merops	–
U capensis	–
Certhia melanura	–
C chalybea*	Nectarinia chalybea
C affra	Nectarinia afra
C cinerea	–
C famosa*	Nectarinia famosa
C violacea*	Nectarinia violacea
C caffra	–
Trochilus capensis	–
Anas montana	–
A cana	Tadorna cana
A canadensis	–
A egyptiacea	Alopochen aegyptiacus
A erythrorhyncha	Anas erythrorhyncha
A capensis	Anas capensis
A dominicana	–
A anser*	–
Aptenodyta demersa	Spheniscus demersus
Procellaria aequinoctialis	Procellaria aequinoctialis
P capensis*	Daption capense
Diomedea exulans	Diomedea exulans
D chlororhynchus	Diomedea chlororhynchos
D demersa (pickewyn)	Spheniscus demersus (see above)
Pelecanus onocrotalus*	Pelecanus onocrotalus
P piscator*	–

3. Note the absence of *Falco canorus* (Thunberg, 1799)

Thunberg's name	Current name
P bassanus	Morus capensis
Colymbus cristatus	Podiceps cristatus
Haematopus ostralegus	Haematopus ostralegus
Larus marinus*	–
Sterna africana*	Sterna hirundo
S stolida*	Anous stolidus
Phoenicopterus ruber*	Phoenicopterus ruber
Platalea leucoradia	Platalea alba
Ardea pavonina	Balearica regulorum
A capensis	–
A major	Ardea cinerea
A alba. cocoi	Egretta alba
A purpurea ?	Ardea purpurea
A nycticoras*	Nycticorax nycticorax
A herodias	–
Tantalus sp.*	Threskiornis aethiopicus
Scolopax leucocephala	–
S capensis*	Rostratula benghalensis
S ? gallinago*	Gallinago nigripennis
S caffra	–
Tringa cinclus*	–
Charadrius coronatus	Vanellus coronatus
C aethiops	–
C hiaticula*	–
Recurvirostra avosetta*	Recurvirostra avosetta
Fulica porphyrio*	Porphyrio porphyrio
F carunculata	Gallinula chloropus
Rallus capensis	–
R coerulescens	Rallus caerulescens
R niger	Amaurornis flavirostris
Otis afra	Eupodotis afra
Struthio camelus	Struthio camelus
Numida meleagris*	Numida meleagris
Columba coronata?	–
Tetrapteryx capensis*	Anthropoides paradisea
T virgo	–
Phasianus gallus*	chicken
Pavo cristatus*	peacock
Meleagris gallopavo	turkey
Alauda africana	Certhilauda curvirostris
A capensis	Macronyx capensis
Sturnus capensis	Sturnus vulgaris
Turdus olivaceus	Turdus olivaceus
T phoenicurus	–
T ruficaudus	–
T capensis*	Pycnonotus capensis
T atricapillus	Lioptilus nigricapillus
T morio	Onychognathus morio
T bicolor	Spreo bicolor
T chrysogaster	–
T ceylonus	Telophorus zeylonus
T cyaneus	–
T nilaus	–
T africanus	–
Columba oeneas*	–
C guineensis?	–
C capensis*	Oena capensis
C senegalensis	Streptopelia senegalensis
C risoria	–
Tetrao coturnix	Coturnix coturnix
C capensis	Francolinus capensis
Colius capensis*	Colius colius
C erythropus	–
C striatus	Colius striatus
Loxia naevia	–
L astrild	Estrilda astrild
L butyracea	–
L africana	–
L sulphur(ata)	Serinus sulphuratus
L flaviventris	Serinus flaviventris
L cafra	–
L totta	Serinus tottus
L capensis*	Euplectes capensis
L orix*	Euplectes orix
Emberiza capensis	Emberiza capensis
E schoeniclos	–
E longicauda	Euplectes progne
E paradisea	Vidua macroura
Tanagra capensis	–
Fringilla alario	Serinus alario
F naevia	–
F arcuata*	–
Muscicapa leucura	–
M afra	Sphenoeacus afer
M capensis	Batis capensis
M torquata	–
M ochracea	–
M albifrons	–
M dichroa	Cossypha dichroa
M deserti	–
Motacilla macroura	–
M africana	–
M afra	–
M pileata*	–
M aurantia	–
M hottentotta	Oenanthe pileata
M capensis	Motacilla capensis
M caffra	Cossypha caffra
M silvia ?	–
Pipia capensis	–
Pipia lineata (muysvogel)	–
Parus afer	Parus afer
P capensis	–
Hirundo capensis	–
H torquata	–
H rustica ?	Hirundo rustica
H riparia ?	Riparia riparia

Thunberg's names of the amphibia and pisces can be given as they appear in the manuscript:

Amphibia: Testudo geometrica, T.pusilla, Lacerta orbicularis, L.stellio ?, L.geitje, L.chamaeleon, L.pumila, L.anguina, L.cordylus, L.leguana, L.mauritanica, L.cristata, L.vittata, Coluber an(..)dytes, C.serastes, C.niveus.

Pisces: Scorpaena capensis, Cyprinus gonorhynchus, Diodon holocanthus, Syngnathus pelagicus, Raja torpedo, R.capensis, Silurus anguillius, Chimaeia callorhynchos, Ostracion comutus, Sparus dentex, Trinda anulus, T.volitans, Diodon atinga, D.mola.

10.8 THE EXPEDITIONS

Thunberg undertook three major expeditions into the Cape interior. Twice he went in an easterly direction to the vicinity of Port Elisabeth, once to the north up to the Doorn River. He described his activities in the first two volumes of his *Resa* published in Swedish in 1788 and 1789. His routes were traced by Forbes (1946, 1965:25-36, 1986). He did not record the animals seen on the way in all cases, but many were mentioned. These are detailed below with page references to the Swedish edition of his book (vol.I as 1788, vol.II as 1789), and to the

most recent English edition edited by V.S.Forbes (as 1986). Thunberg often included a binominal name for the animals seen. These are given as they appear in the original Swedish, but only the vernacular is translated in the English quotation as the binomen is the same. Thunberg was accompanied on two journeys by Francis Masson, whose own published records were treated separately (8.5.2 and 8.5.3).

10.8.1 *First expedition*

On this first expedition towards the east, Thunberg left the Cape on 7 September 1772 and returned on 2 January 1773. He was accompanied by Johann Andreas Auge (1711-1805), superintendent of the Company's gardens in Cape Town from 1751-1778 who made many journeys into the interior to collect plants; by Daniel Ferdinand Immelman (b.1756) who later also accompanied Sparrman (see 9.7.2); by Christiaan Hector Leonhardy, a sergeant of the army who went along to shoot the larger animals and birds; and by 2 Hottentots.

Thunberg started in a northerly direction via Theefontein to Saldanha Bay, to continue eastwards through Tulbagh, Worcester to Swellendam. He then went to Heidelberg, Riversdale, Mossel Bay, Knysna and Plettenberg Bay, along the Keurbooms River across the Outeniqua Mountains to Avontuur in the Lange Kloof. He continued east to the Gamtoos River. On his return journey he again passed through the Lange Kloof and continued to Oudtshoorn and Swellendam. From there he took the direct route back to Cape Town via Caledon.

[1] 7 September 1772; Groene Kloof 33°30'S, 18°28'E
Phoenicopterus ruber, 'flammingo (*Phoenicopterus ruber*)' – 'flamingoes' (1788:166, 1986:56)
Anatidae, 'ånder' – 'ducks' (1788:167, 1986:56)
Rostratula benghalensis, 'snåppor (*Scolopax capensis*)' – 'snipes' (l.c.)
Eupodotis afra, 'korrhanar (*Otis* ?) – 'Korhaan' (l.c.)
Not identified, 'haantje' (l.c.)
Alcelaphus buselaphus, 'hartebestar (*Capra dorcas*)' – 'hartebeests' (l.c.)
Raphicerus campestris, 'stenbockar (*Capra grimmia*)' – 'steenboks' (l.c.)
Sylvicapra grimmia, 'duykers (*Capra*)' (l.c.)
Struthio camelus, 'strutsar' – 'ostrich' (l.c.)

[2] 15 September 1772; Company's Post at Saldanha Bay 33°5'S, 18°E
Bovidae, 'antelopes' (1788:168, 1986:57)
Anatidae, 'ander' – 'ducks' (l.c.)
Panthera pardus, 'tigrar' – 'tiger' found dead after it ate poisonous plants (1788:169, 1986:58)
Arctocephalus pusillus, '*Phoca* (Robben)' – 'seals' (l.c.)

[3] 24 September 1772; Theefontein 33°12'S, 18°22'E
Eupodotis afra, 'korrhan' – 'korhaan' (1788:170, 1986:59)
Sagittarius serpentarius, 'secretaris (*Falco secretarius*)' – 'secretary bird' (1788:171, 1986:59). Thunberg saw a tame specimen in Constantia.

[4] 25 September 1772; Berg River 33°7'S, 18°51'E
Not identified, 'svart torndyfvel (*Trichius laticollis*)' – 'black beetle' (1788:172, 1986:59)
Parisoma subcaeruleum, 'nåktergal (nachtigall)' – 'nightingale' (1788:172, 1986:60).
Orthoptera, 'opblasers (*Pneumora*)' (l.c.)
Euplectes progne, 'fink (Loxiae)' – 'finches' with description of nest (l.c.).

[5] 26 September 1772; Roode Zand 33°17'S, 19°10'E
Dispholidus typus, 'orm (Coluber scut.abd.197, squam.caudal.124), boomslang' (1788:179, 1986:65)
Hirundo sp., 'svalorne (*Hirundo rustica*)' – 'swallows' (1788:160, 1986:66)

[6] 9 October 1772; Koree 33°45'S, 19°48'E
Procavia capensis, 'dassi (*Cavia capensis*)' – 'dasses' (1788:188, 1986:71)

[7] 3 November 1772; Koukuma River 34°4'S, 22°56'E
Syncerus caffer, 'vild buffelstjur' – 'buffalo' (1788:208, 1986:87)

[8] 5 November 1772; Robbeberg at Plettenberg Bay 34°7'S, 23°24'E
Arctocephalus pusillus, 'robben' – 'seals' (1788:212, 1986:91)

[9] 10 November 1772; Houtniquas Land, area west of Keurbooms River 34°S, 23°24'E
Syncerus caffer, 'bufflarne' – 'buffaloes' (1788:220, 1986:96)

[10] 17 November 1772; Wagenbooms River c. 33°46'S, 23°58'E
Threskiornis aethiopicus, 'wilde kalkoen (*Tantalus*)' – 'wild turkey' (1788:225, 1986:98)

[11] 20 November 1772; Seacow River 33°58'S, 24°43'E
Panthera leo, 'lejon' – 'lions' (1788:225, 1986:98)
Hemachatus haemachatus, 'ringhals' (1788:233, 1986:104)

[12] 23 November 1772; Camtours (= Gamtoos) River 33°52'S, 24°54'E
Hippopotamus amphibius, 'Hippopotamus, sjö-häster eller sjö-koe' – 'sea-horse (or sea-cows, Hippopotamus)' (1788:233, 1986:104)

[13] 26 December 1772; Soetemelksvlei 34°8'S, 19°45'E
Sagittarius serpentarius, 'secretaris fogelen' – 'secretary bird' (1788:241, 1986:109).

10.8.2 *The Cape in 1772*

Thunberg stayed some eight months near Cape Town between the first and second expeditions. During this time he made some short excursions, for instance to Table Mountain and Lion's Head, and on 13 to 19 May 1773 he explored on foot the mountains between the Cape and False Bay together with R.J.Gordon and F.Masson.

[14] Robben Island 33°49'S, 18°22'E
Arctocephalus pusillus, 'seals' used to be plentiful, but they had been driven away (1986:125)
Brachypodion pumilium, 'chameleons' (l.c.)
Coturnix coturnix, 'quails' (l.c.)

[15] Sea near Cape Town
Jasus lalandii, 'Capska hummern (Cancer arctos)' – 'Cape lobster' (1788:268, 1986:127)
Astrocladus euryale, 'medusae hufvud (Asterias caput medusae)' – 'Medusa's head' (l.c.)
shells, 'slag af Pateller' – 'species of Patellae' (1788:269, 1986:128)
shells, 'strand-dubbeltje' (l.c.)
Testudo geometrica, '*Testudo geometrica*, syrentje' (1788:272, 1986:129)
Callorhynchus capensis, '*Chimaera callorhynchus*, doodskop, Joseph' (1788:328, 1986:164)
Not identified, '*Raja mirelatus*, rock' (l.c.)
Torpedo sinuspersia, '*Raja torpedo*, trill visch' (l.c.)

[16] Cape Town
Diceros bicornis, 'enhörningshorn (rhinoceros)' – 'rhinoceros horn' (1788:275, 1986:132). The horns were used to detect poison. Thunberg experimented with its efficacy and found some reaction when a chloride was poured into a cup made from the horn.
Euplectes orix, 'goldfinken (*Loxia orix*)' – 'goldfinch' (1788:279, 1986:134)
Bathyergus suillus, 'witte moll, *Marmota africana*' – 'white mole' (1788:293, 318, 1986:143, 158)

Georychus capensis, 'bles-moll *Marmota capensis*' (1788:293, 1986:143)
Chrysochloris asiatica, 'blinde moll, *Talpa asiatica*' (l.c.)
Hystrix africaeaustralis, 'hystrix (eyzer-varken)' – 'porcupine' (1788:315, 1986:157)
Thermophilum decemguttatum, 'hard-looper, *Carabus 10-guttatus*' (1788:326, 1986:163)
Lanius collaris, 'fiscal, canarie-byter, *Lanius collaris*' (l.c.)
Telophorus zeylonus, 'grön trast, *Turdus ceilonus*' – 'green thrush' (1788:327, 1986:163). The English translations, Thunberg 1793,I:294 and 1986:163 spell the name of the bird, *T.ceilonicus*.
Pelecanus onocrotalus, 'kropgans, *Pelecanus onocrotalus*' – 'pelican' (1788:328, 1986:163).
Chamaeleo sp., 'chamaeleonten' – 'chameleon' (1788:329, 1986:165)
Agama atra, '*Lacerta stellio*' (l.c.)
Agama hispida, '*Lacerta orbicularis*' (l.c.)
Estrilda astrild, '*Loxia astrild*, rood-beckje' (1788:347, 1986:176)
Streptopelia capicola, 'Turtur dufvor, *Columba risoria*' – 'turtle-dove' (l.c.)
Merops apiaster, 'gröna bergsvalor (*Merops apiaster*)' – 'swallow' (l.c.)

[17] Noordhoek 34°7'S, 18°23'E
Phoenicopterus ruber, 'flamingos (*Phoenicopterus ruber*)' – 'flamingoes' (1788:298, 1986:147)

[18] Table Mountain 33°58'S, 18°25'E
Procavia capensis, 'dassi' – 'dassies' (1788:316, 1986:157)
Papio ursinus, 'babianer' – 'baboons' (l.c.).

10.8.3 *Second expedition*

Thunberg was away from the Cape between 11 September 1773 and 29 January 1774 on this second expedition again in a generally easterly direction. He was accompanied by Francis Masson, a European servant and 4 Hottentots. He started going northwards through Mamre, Saldanha Bay and Vredenberg to the Berg River. Here he turned east towards Bridgetown, then north again to Citrusdal. From there he travelled to Ceres, Worcester and Swellendam, then east to Riversdale and the Mossel Bay. He continued by passing the Attaquas Kloof to the Lange Kloof, which he followed past Humansdorp to the Gamtoos River. This time he crossed that river and reached the vicinity of the Sundays River. The return journey followed the same route to Swellendam, and then direct to Cape Town past Caledon.

[19] 12 September 1773; Tierberg 33°48'S, 18°35'E
Not identified, 'vata-skölpaddor' – 'water-tortoises' (1789:3, 1986:180)
Chersine angulata, 'land-skölpaddor, *Testudo pusilla*' – 'land-tortoise' (l.c.)

[20] 13 September 1773; Gansekraal 33°30'S, 18°20'E
Haliotis sp., 'Haliotis (en snäcken)' – 'a kind of mollusc' (1789:5, 1986:182)
Georychus capensis, 'blåsige sandmulvardan, *Marmota capensis*' – 'variegated sandmole' (l.c.)
Bathyergus suillus, 'hvita sandmulvardan, *Marmota africana*' – 'white sandmole' (l.c.)

[21] 19 September 1773; North of Groene Kloof 33°24'S, 18°22'E
Pelea capreolus, 'rhebåcker (*Capra*)' – 'reebok' (1789:7, 1986:183)
Alcelaphus buselaphus, 'hartebeestar (*Capra dorcas*)' – 'hartebeest' (l.c.)
Raphicerus campestris, 'stenbåcker (*Capra grimmia*)' – 'steenbok' (l.c.)
Sylvicapra grimmia, 'dykare båckar (duykers, *Capra*)' – 'diving buck' (l.c.)
Eupodotis afra, 'korrhanar' – 'korhaan' (l.c.)
Struthio camelus, 'strutsar' – 'ostrich' (l.c.)

[22] 22 September 1773; Taxen Island in Saldanha Bay 33°3'S, 17°59'E
Oryctolagus cuniculus, 'rabbits' in great abundance (1986:184)

[23] Dassen Island (= Malagas Island) in Saldanha Bay 33°3'S, 17°56'E
Spheniscus demersus, 'pinguiner (*Diomedea*)' – 'penguins' (1789:9, 1986:184)

[24] 28 September 1773; Witklip 32°55'S, 17°59'E
Apus caffer, 'svala (*Hirundo apus*)' – 'swallow' (1789:10, 1986:185).
Struthio camelus, 'strutsar' – 'ostrich' (l.c.)
Lycaon pictus, 'vilde hundar, jackhalsen' – 'wild dogs, which were here called jackalls' (l.c.). The habit of hunting in large groups is described.

[25] 30 September 1773; Honingklip 32°47'S, 18°1'E
Corvus capensis, 'kråkorne (*Corvus Hottentottus*)' – 'crows' (1789:12, 1986:186)
ticks, 'Acari' (l.c.) on cows
Raphicerus melanotis, '(Greis-bock, Capra) grå båck' – 'grysbok' (l.c.), a tame specimen probably kept by Nicolas Klein, an unknown farmer who lived in this neighbourhood.

[26] 2 October 1773; Zout River 33°2'S, 18°30'E
Euplectes orix, 'goldfinken (*Loxia orix*)' – 'goldfinches' (1789:15, 1986:188). This species was smaller than '*Loxia capensis*' (= *Euplectes capensis*).
Eupodotis afra, 'korrhanarne' – 'korhaans' (l.c.).

[27] 16 October 1773; Koud Bokkeveld c.33°5'S, 19°E
Dispholidus typus, 'boomslang' (1789:26, 1986:196)
Estrilda astrild, 'roodbackjes, *Loxia astrild*' (l.c.)
Raphicerus campestris, 'stenbåckarnen' – 'steenbocks' (l.c.)
Sylvicapra grimmia, 'dykare båcken (duykers)' – 'duykers (l.c.)
Antidorcas marsupialis, 'springbåcken' – 'springbocks' (l.c.). Later Thunberg (1789:28, 1986:197) called it '*Capra pygargus*'. It lived in scattered herds, but in some years it migrated in large numbers. It was absent from mountainous tracts.

[28] 27 October 1773; Roode Zand 33°17'S, 19°10'E
Oena capensis, 'Maquas duyv (*Columba capensis*)' (1789:39, 1986:203)

[29] 5 November 1773; Keurbooms River 34°1'S, 20°14'E
Cercopithecus aethiops, 'monkey from Houtniquas wood ... like *Simia sabaea*' (1986:208)

[30] 9 November 1773; near Swellendam 34°2'S, 20°25'E
Dictyophorus spumans, 'gråshoppa, *Gryllus spumans*' – 'grasshopper' (1789:50, 1986:211)
Pelea capreolus, 'rhebåckar' – reeboks' (l.c.)
Redunca arundinum, 'ritbåckar (*Capra*)' – 'rietboks' (l.c.)
Damaliscus dorcas, 'bontebåckar (*Capra scripta*)' – 'bonteboks' (l.c.)

[31] 11 November 1773; near Riversdale 34°5'S, 21°14'E
Spreo bicolor, 'en art af *Corvus*, som kallades Spreuw' – 'kind of *Corvus* called spreuw' (1789:54, 1986:214).

[32] 26, 27 November 1773; near Heights 33°52'S, 23°58'E
Crocuta crocuta, 'tiger-varg (*Hyaena maculata*)' – 'tyger wolf' (1789:65, 1986:222)
Taurotragus oryx, 'elandsbåcker (*Capra oreas*)' – 'eland-boks' (1789:66, 1986:222). It was compared with the bontebok and gemsbok '*Capra oryx*' (= *Oryx gazella*).
Philantomba monticola, 'orebi (*Capra monticola*)' (l.c.). A small specimen was caught in the Lange Kloof.

[33] 1 December 1773; Seacow River 34°4'S, 24°46'E
Euplectes progne, 'langstaart, *Loxia macroura*' (1789:73, 1986:226).
Schizocephala bicornis, 'gråshoppen (*Mantis fausta*)' – 'grasshopper' (1789:73, 1986:227) called Hottentots God.

Not identified, 'water-tortoises' (1789:75, 1986:227).

[34] 13, 14 December 1773; Kraggakamma 34°3'S, 25°25'E
Syncerus caffer, 'buffeloxar, *Bos caffer*' – 'buffaloes' (1789:94, 1986:229). One was shot out of a herd of 500-600 animals.
Loxodonta africana, 'elephanter' – 'elephants' (l.c.)
Diceros bicornis, 'tvåhörningar' – 'two-horned rhinoceroses' (l.c.)
Equus zebra, 'randige hastar ... zebra' – 'striped horses' (l.c.)
Equus quagga, 'asnor (quagga)' – 'asses' (l.c.)
Alcelaphus buselaphus, 'hartebestar (*Capra dorcas*)' – 'hartebeests' (l.c.)
Panthera leo, 'lejon' – 'lions' (1789:98, 1986:241). Five of them passed within a few hundred paces.

[35] 15 December 1773; near Zwartkops River 33°48'S, 25°31'E
Syncerus caffer, 'buflar' – 'buffaloes' (1789:100, 1986:242)
Loxodonta africana, 'elephanter' – 'elephants' (l.c.)
Diceros bicornis, 'tvåhorningar' – 'two-horned rhinoceroses' (l.c.)
Equus zebra, 'hastar, *Equus zebra*' – 'striped horse (l.c.)
Equus quagga, 'asnor, *Equus quagga*' – 'asses' (l.c.)
Alcelaphus buselaphus, 'hartebestar (*Capra dorcas*)' – 'hartebeests' (l.c.)
Tragelaphus strepsiceros, 'kudus (*Capra strepsiceros*)' – 'koedoes' (l.c.)

[36] 20 January 1774; Tigerhoek 34°9'S, 19°54'E
Hippotragus leucophaeus, 'blå-båcken (blauwe bok, tseiran, *Capra leucophaea*)' – 'blue buck' (1789:127, 1986:258)
Equus zebra, 'randige hästen (*Equus zebra*)' – 'striped horses' (1789:127, 1986:259)

[37] 25 January 1774; Booter River 34°14'S, 19°14'E
Genetta sp., 'svartflackig katt (*Viverra*)' – 'cat spotted with black' (1789:129, 1986:260)

[38] 26 January 1774; Hottentots Holland Mountains 34°9'S, 18°55'E
Papio ursinus, 'babianer' – 'baboons' (1789:130, 1986:261)

10.8.4 *Third expedition*

On this journey, Thunberg and Francis Masson went to the north. They passed Paarl, Bridgetown, Leipoldtville, Ouplaas until they reached the Doring River. Then they went east to Niewoudtville and Calvinia, south across the Roggeveld to Worcester. Through Tulbagh they returned to the Cape. The expedition lasted from 29 September to 29 December 1774.

[39] 30 September 1774; Mossel Bank River 33°41'S, 18°40'E
Lepus sp., 'hares' (1986:274)

[40] 14 October 1774; Piketberg 32°50'S, 18°48'E
Panthera pardus, 'tigrar' – 'tygers' (1789:155, 1986:278)
Loxodonta africana, 'elephanter' – 'elephants ... at present, they are quite extirpated' (1789:156, 1986:278)
Streptopelia senegalensis, 'dufva (roode turtelduyv, *Columba senegalensis*)' (l.c.)
Struthio camelus, 'strutsar' – 'ostriches' (1789:158, 1986:279)
Francolinus capensis, 'rapphöns (*Tetrao*)' – 'partridges' (1789:159, 1986:280)

[41] 14 October 1774; Vogelvalley 32°49'S, 18°46'E
Not identified, 'sjöfoglar' – 'sea-fowls' (1789:157, 1986:279)
Rostratula benghalensis, 'snäppor' – 'snipes' (l.c.).

[42] 24 October 1774; Verloore vlei 32°34'S, 18°40'E
Ardea cinerea, 'hägrar, *Ardea major*' (1789:160, 1986:281)
Nycticorax nycticorax, '*Ardea caerulea*' (l.c.)
Anatidae, 'änder (Anates)' – 'ducks' (l.c.)
Fulica sp., 'fulicae' – 'coots' (l.c.)
Not identified, 'ormar' – 'serpents' (1789:162, 1986:282)
Bathyergus suillus, 'sandmulvadan' – 'sandmoles' (1789:163, 1986:282)

[43] 26 October 1774; Olifants River 31°45'S, 18°35'E
Alopochen aegyptiacus, 'vild gas (*Anas aegyptiaca*)' - 'wild goose' (1789:168, 1986:284)

[44] 13 November 1774; Rhonnoster River 31°22'S, 19°58'E
Panthera leo, 'lejon' – 'lion' (1789:184, 1986:295)
Equus zebra, 'randig häst (zebra)' – 'striped horse' (l.c.) killed by the lion.

[45] 23 November 1774; Roggeveld 31°52'S, 20°E
Antidorcas marsupialis, 'springbåcken' – 'springboks' (1789:191, 1986:300) which came here in large numbers from the interior.

[46] 16 December 1774; Roode Zand 33°17'S, 19°10'E
Felis caracal, 'roode katt' (1789:204, 1986:309)
Pedetes capensis, 'hoppande råtta (*Jerboa capensis*)' – 'jumping rat' (l.c.)

10.9 COLLECTIONS

Thunberg was an assiduous collector of natural history specimens. This was the first and foremost purpose of his travels all around the world. The emphasis was on plants and much has already been written about Thunberg's own herbarium and about specimens distributed to others (especially Juel 1918, Karsten 1946a). Animals were less in number, but still the collection of insects, even mammals and birds, must have been considerable. In July 1785, Thunberg donated his entire collection of natural history specimens to the University of Uppsala. It was at least partly catalogued and it would seem possible to document the extent of the zoological specimens from the Cape of Good Hope. This is difficult for several reasons as will appear below. But the story needs to be told from the start.

While travelling through the Cape interior in 1772-1775, Thunberg continually added plants, insects and some larger animals to his collection. There are few references to this activity in the published account of his travels. At the start of the first expedition, Thunberg (1986:53) was supplied 'with boxes and pins for insects, a keg of arrack for preserving serpents and amphibious animals, cotton and boxes for stuffing and keeping birds in ...' He then assembled 'a fine collection of plants, birds and seeds' (Thunberg 1986:67). When he returned to Cape Town, his first task was 'to look over and put into order the collection of animals, plants and seeds' (Thunberg 1986:113). Later he said that elsewhere he shot 'a great number of beautiful Cape birds for the cabinets of the curious in Europe' (Thunberg 1986:114). At the start of his second expedition, he hoped to collect animals and plants hitherto unknown (Thunberg 1986:179) and he certainly actively tried to shoot birds because he complained that branches troubled him 'in hiding from me a number of small birds, which I had shot down from their supple twigs' (Thunberg 1986:186). At the end of this expedition he mentioned that he sent 'to my other patrons, a great number of bulbous roots, seeds, insects, stuffed birds, and other scarce animals' (Thunberg 1986:262).

These references do not provide details about the number of the animals collected. Some of the plants were sent back to Holland and Sweden while he stayed at the Cape, but there is no detailed evidence for the zoological specimens. When Thunberg left the Cape to go to Japan, he apparently left at least some specimens behind, maybe to be sent to Sweden when an opportunity would arise, maybe to await his own return. It is not generally realised that at least part of this material was taken

back to Sweden by Anders Sparrman in 1776, as he wrote to George Forster on 25 July 1777: 'I carried with me the whole Thunbergian collection out of friendship to him and the sciences, they being in danger at the Cape in several respects, and I left them according to address by Mr.Montin, who has assisted Thunberg with money and has made him heir and Editor of the plants when he dies' (Leuschner et al. 1982:45). We are not told about Thunberg's reaction.

When Thunberg returned to Sweden in March 1779, he must have found these Cape specimens waiting for him and he added them to his own collection. As detailed by Löwegren (1952:204-206), he presented everything to the University of Uppsala on 5 July 1785. Earlier, he had donated Indian books, gems, stones and coins to the library of the University of Uppsala, and he gave other coins to the Royal Coin Collection in Stockholm. In the museum of Uppsala, Thunberg still had free access and complete freedom to review the collections because he was also put in charge of the museum of natural history. At that time the zoological part of the collection, with animals from all parts of the globe, occupied considerable space (Löwegren 1952:206-207):

Insects: 13 cupboards (of 24 drawers each) distributed as follows: Coleoptera 3, Hemiptera 1, Lepidoptera 2, Phalaenae 3, Neuroptera 1, Hymenoptera 1, Diptera 1, Aptera 1 cupboards.
Amphibia and pisces: 8 cupboards (mostly kept in spirits)
Conchylia: 11 cupboards (each with 18 drawers)
Mammalia: some were stuffed, others kept on wood shelves
Aves: several hundreds were stuffed and kept in drawers with glass
Plants: 18 cupboards.

Most of this material was not identified; it would occupy Thunberg the rest of his life. Apparently, Thunberg still had control over the collection. According to Mohnike (1831:47), the insect collection was offered for sale in foreign magazines at the time of his death. However,Thunberg had fixed by testament that the insects should go to D.Forsberg to be classified and afterwards to the University of Uppsala.

As detailed in 10.5.3, Thunberg started to publish a catalogue of the specimens in the museum in 1787. This *Museum Naturalium* mainly listed specimens which he had collected. The 'Donatio Thunberg' occupied a total of 46 parts (animals 12, plants 34). It may be noted that at the start of this list in *Museum* part 2 (1787:25), the donation is dated 1775, but, although never corrected, that must have been a misprint for 1785. There are three problems to use this catalogue.

1.The *Museum* is a list of binominal names, often without description or locality;
2.The *Museum* is not necessarily a complete enumeration;
3.The *Museum* is not merely a list of specimens collected by Thunberg.

Thunberg followed the system of classification and nomenclature introduced by Linnaeus. To him the name of an animal was enough to identify the species, and if unknown, with the addition of a short diagnosis. Most of his publications consist of such long lists of names. However, this cannot really satisfy our curiosity; if he has a *Bos gnu*, was he referring to a stuffed skin of an adult, or a young, did it include a skull, or were there only horns, was it collected by Thunberg or somebody else, where and when? Many unanswered questions. Due to changes in nomenclature, these lists are not easily accessible today. It could be hazardous to extract the species found at the Cape of Good Hope. However, this can be done by comparing the species listed in the *Museum* and those in Thunberg's manuscript lists of Cape animals (see 10.7.3). This will give an indication which South African animals were present in the collection, but not necessarily collected by Thunberg. I shall here follow the order of the *Museum* and confine myself to the vertebrates. The current names of the animals can be found in 10.6.6 for the mammals and 10.7.3 for the birds.

The various parts of the *Museum* including its Appendix mentioned 35 species of South African mammals, 50 birds and 6 other vertebrates.

Museum part 2, 1787, pp.25-26: (Mammals)
Simia sabaea, Viverra genetta, Bos gnu, Equus zebra, Capra dorcas, C.oreas, C.pygargus, C.sylvatica, C.leucophea, C.strepsiceros.
Museum, part 2, 1787, pp.26-28: (Birds)
Falco apivorus, F.tinnunculus, Strix scops, Lanius collaris, Alcedo capensis, Merops apiaster, Certhia chalybea, C.famosa, Procellaria capensis, Pelecanus piscator, P.carbo, Larus marinus,Sterna stolida, Scolopax capensis, S.gallinago, Phoenicopterus ruber, Charadrius hiaticula, Columba risoria, Pavo cristatus, Turdus capensis, Loxia capensis, L.orix, Emberiza schoeniclos.
Museum, part 2, 1787, p.29, 32 (Other):
Testudo geometrica, Cyprinus gonorynchus.
Museum Appendix 1, 1791, pp.111-113:
Bos caffer: caput.
Upupa epops, Plotus ahinga, Numida meleagris, Columba oenas, Raja torpedo, Sparus dentex.
Museum Appendix 3, 1794, pp.131-132:
Canis mesomelus, Felis caracal, Marmota capensis.
Anas anser, Ardea nycticorax, Recurvirostra avosetta, Platalea leucorodia, Fulica porphyrio, Tringa cinclus, Phasianus gallus, Meleagris gallopavo.
Museum Appendix 4, 1796, p.145 Phoenicopterus ruber.
Museum Appendix 6, 1798, p.111: Felis pardus, Felis jubata.
Museum Appendix 24, 1818, p.30-34:
Simia sphynx, Canis aureus, Felis capensis,F.chaus, F.leo, Viverra felina, V.grisea, V.ichneumon, V.tigrina, V.zorilla, Ursus mellivorus, Hystrix cristata, Antilope eleotragus, A.maculata, A.monticola, A.oryx, A.strepsiceros (junior), Equus zebra (junior)
Certhia violacea, Picus aurantius, Alcedo ispida, Pelecanus onocrotalus, Larus marinus, Sterna africana, Tetrapteryx capensis, Tantalus ruber, Pavo cristatus, Columba capensis, Colius capensis, Fringilla arcuata, Motacilla pileata.
Testudo geometrica, Testudo pusilla.

How complete is the enumeration of species in the *Museum*? In the last part of the *Museum Appendix* (no.26, 1819), there is a summary of the number of specimens included in the donation (p.52): 'Naturae Thesauri, quos Cel.Praeses Regiae Academiae Upsaliensi, praeterlapse proxime XXXIII annis in publicum usum benevole donavit, & continuo auxit, individuis numerosis tam Animalium, quam Vegetabilium constare deprehenduntur, scilicet:

		Translated
Mammalibus	230	Mammals
Avibus	680	Birds
Ovibus avium	70	Bird eggs
Nid. avium	8	Bird nests
Amphibiis	150	Reptiles & amphibia
Piscibus	207	Fishes
Craniis anim.	20	Animal skulls
Insectis	ultra 5000	Insects
Vermibus	65	Invertebrates
Testaceis	ultra 1115	Shells
Seminib. & fruct. plurimis plantarum, fol	23,510	Plant specimens
quae in Herbario species constituerunt	15,050	Plant species.

These numbers refer to individual specimens. However, the *Museum* listed only a total of 127 mammals and 434 birds, a few species of which are mentioned more than once. It is not likely that all mammals were represented by more than one specimen. During the last years of his life, Thunberg continued to publish reviews of Cape insects especially Coleoptera. Most of the species included in those publications appearing after 1819, were absent from the *Museum*, probably because they had not been identified before.

It would seem logical that the 'Donatio Thunberg' would include only specimens of animals and plants which he had collected himself. It is clear, however, that Thunberg enlarged his collection from other sources after his return and those were equally part of the donation. This is immediately apparent from the first entry (1787:25), a specimen of *Simia satyrus* (the orang utan) which, according to a footnote, had been brought alive from Java by Hornstedt (Rookmaaker, in press).

Thunberg may not have been altogether happy with the number of mammals which he had been able to obtain in southern Africa. At least twice he tried to get additional specimens. On 20 May 1779 a letter was written to Thunberg by Daniel Ferdinand Immelman (b.1756) who had accompanied him on an expedition into the interior.[4] He was glad to hear about Thunberg's safe arrival in Europe and regretted not to be able to accomplish an (unnamed) commission. A second letter of 10 July 1780 referred to Thunberg's answer (apparently dated 23 December 1779) in which Thunberg had asked if Immelman could buy some curiosities and insects for the money which was left. A third (and last) letter dated 25 March 1781 by Immelman replies to this again, and it can here be partly reproduced translated from the Dutch:

In your last letter you requested me to buy some skins of animals for you which I have acted upon. I took 50 rijksd. from our good friend Kepler on your account and passed a reasonable tradesman where I bought the following skins of animals:

1 skin of blauwbok [bluebock]	rds. 8,–
1 skin of boschbuffel [wood buffalo]	rds. 8,–
1 skin of elandt [eland]	rds. 6,–
1 skin of young elandt	rds. 3,–
1 skin of hartebeest	rds. 5,–
Total	rds. 30,–
1 skin of koedoe	rds. 6,–
1 young koedoe	rds. 3,–
1 rode katte [red cat]	rds. 2 – 4 – 0
1 ratel	rds. 1,–
1 rietbok	rds. 3,– 4 -0
1 crate to pack the skins	rds. 2,–
1 cupboard	rds. 1,–
pepper and camphor	rds. 1,–
Total	rds. 50,–

(signed) D.F.Immelman Cabo de Goede Hoop, 25 March 1781

P.S. I forgot to mention that as some space was left in the crate, I took the liberty to add some things for our good friend dr.Sparrman, i.e. a bag of Cape Swarte Bergh ointment and two mounted birds rolled in paper, which I hope you will give to him. I also put in the crate a skin of a hartebeest with one horn for you to make riding trousers as well as the horns, legs and tail of a bushbock, because I was unable to get a complete skin.

We must assume that Thunberg in fact received this shipment. All the species are mentioned in the *Museum*, variously in 1787, 1791, 1794 and two as late as 1818.

A few years later Thunberg received a note from the firm 'Huyer en Hinloopen' in Amsterdam dated 24 July 1790 stating receipt of two sealed crates with natural history specimens received from Carl Gustav von Batt at the Cape of Good Hope. We are not further informed about their contents (possibly plants or insects) or even their arrival in Sweden.

The second well-founded instance in which Thunberg acquired mammal skins from the Cape is from a later date. It is found in the correspondence with the younger Nicolaas Laurens Burman (1782-1826) published by Karsten (1939a). On 22 March 1821 Burman acknowledged Thunberg's request for skins saying that it might be difficult because Temminck had had little success lately (see Gijzen 1938:37). On 26 April 1822 Thunberg received something like a price-list from the Cape, which is interesting because it shows the different prices of various items (the Cape rixdaler then was about equal to the Dutch guilder); from Karsten 1939a:12-13.

A skin of the common sheep	10 rixdalers
A skin of the steenbok, with horns and teeth, male and female	10 rds. each
A skin of a duyker	10 rds
A skin of a Greisbock	10 rds
A skin of a Rheebock	25 rds
A skin of a Klipspringer	25 rds
A skin of a Miereneeter, or Aardvark	50 rds
A skin of a Berghaas or Springhaas	25 rds
A skin of a zebra, female	50 rds
A skin of a Quagga	50 rds
A skin of a Strandwolf	50 rds
A skin of a muyshond	8 rds
A skin of a Giraffe	400 rds

Other skins like those of the white mole, wild pig, Cape buffalo, hippopotamus, elephant and rhinoceros would not be available. Thunberg replied on 28 May 1822 wanting to buy only the skins of the quagga, steenbok, duyker and greisbok. Maybe the others were too expensive? Burman wrote again on 2 November 1824 that his Cape agent had sent a case with skins of a steenbok, duiker and grysbok - the quagga was apparently no longer available. It was despatched from Amsterdam to Stockholm on 23 July 1824. We may assume their safe arrival in Sweden, but the publication of the *Museum* had ceased.

One would expect that all specimens would still be available in the Zoological Museum of Uppsala.[5] Probably some of the skins were discarded in the course of the years. It cannot now be established how many specimens from Thunberg's period still remain. Only two specimens of South African mammals can definitely be recognised from that time:

1: a pair of horns of the blue bock (*Hippotragus leucophaeus*) as noted by Mohr (1967:42, fig.22)

2: a skull of a 'greisbock' (*Raphicerus melanotis*) labelled in Thunberg's handwriting as the type of *Antilope melanotis* Thunberg, 1811.

4. Three letters by D.F.Immelman to Thunberg, dated 20 May 1779, 10 July 1780, 25 March 1781, are preserved in Thunberg's correspondence, University of Uppsala.

5. These notes were prepared through the kind welcome and assistance of Dr Lars Wallin, curator of the Zoological Museum in Uppsala.

While the vertebrates have been mixed with the general collection, the Zoological Museum of Uppsala preserved Thunberg's insects separately and in its original form (Schulz 1913:63). The cupboards made for Thunberg fill four sides of an entire room. They contain more than 10,000 specimens from the Cape of Good Hope as well as many other countries. The collection is still preserved adequately. It must contain many type specimens presumably of all species first described by Thunberg in his numerous entomological publications. Thunberg gave specimens to other museums in Europe, possibly duplicates, like 208 species of exotic insects to the Zoological Museum in Lund, Sweden (Löwegren 1952:367) which were mixed with the other collections and hard to identify in their entirety.[6]

6. Dr Roy Danielsson, Zoological Museum Lund, letter of 11 November 1983.

CHAPTER 11

William Paterson

11.1 BACKGROUND

Early in his life, William Paterson went to South Africa where he made four expeditions into the interior between May 1777 and March 1780. Afterwards, he spent four years in the south of India (1781-1785), and he was then appointed to command a company in New South Wales, Australia, where he became Lieutenant-Governor in 1800. The main object of Paterson's South African journey was to collect plants, especially for Lady Strathmore who had intended to finance his travels. Apparently, Paterson kept a diary with notes about the occurrences and the observations made during the expeditions. That document, however, is not presently known to exist. There are two versions of the travel account which appear to be based on this diary. One is a manuscript version with details about the four expeditions which probably was written between 1780 and 1785, here called the 'Brenthurst Manuscript' after its present depository in Johannesburg (11.4). The second is Paterson's only published book, the *Narrative of four journeys*, which had two editions published in 1789 and 1790 (11.3). During his stay in South Africa, Paterson also made a collection of drawings mainly depicting plants and animals, the 'Paterson Albums' in the Brenthurst Library, Johannesburg (11.5). A final source providing some insight in his life is a series of letters written by Paterson to William Forsyth in London between 1781 and 1803, preserved in the Royal Botanic Gardens at Kew.

The first review of Paterson's activities in southern Africa was provided by V.S.Forbes (1948, 1965) with emphasis on the routes and the geographical value of the expeditions. Forbes and J.Rourke in 1980 carefully pieced together the available details about the life, travels and botanical work of Paterson considering all sources mentioned above. There is no need to repeat their observations, exhaustive and accurate as they are. These authors paid particular attention to Paterson's contribution to botany, less to his comments about zoology. This is a correct emphasis inasmuch as Paterson rarely discussed the South African fauna in his writings. In this chapter I shall highlight the few records about the Cape fauna found in Paterson's legacy.

11.2 BIOGRAPHY

The life of William Paterson (1755-1810) was well described by Forbes & Rourke (1980:17-32) and only an outline needs to be presented here.[1] Paterson was born on 10 August 1755 (baptized on 22 August) in Kinnettles near Forfar, county Argus, in the east of Scotland. His father, David Paterson ,was employed as a gardener in the service of Mr Douglas of Brigton House. The nearby town of Montrose was often incorrectly recorded as Paterson's birthplace (e.g. Duckworth 1957, Forbes 1965:81, Gunn & Codd 1981:273) which led to the presentation of a memorial tablet by the Government of Tasmania to the provost of Montrose on 18 July 1960 (Forbes & Rourke 1980:29).

Nothing is known about Paterson's early life and education. His father must have imparted on him a love for plants and nature. In later years, Paterson regularly wrote to William Forsyth (1737-1804) who had succeeded Philip Miller at the Physic Garden of Chelsea, London. In a letter written from False Bay on 24 May 1777, he extended his compliments to 'Mrs Forsyth & all the family, and my old fellow servants' (Kew ms.). This gave rise to the assumption that Paterson was employed in Chelsea before he started his travels. In the first English translation of Thunberg's travel account, Paterson was called a 'mere gardener' (Thunberg 1795,IV:271). The dirisive undertone suggested that Paterson was botanically uneducated in Thunberg's eyes. It even led Britten (1920:46) to assume the presence of two persons at the Cape: Paterson the writer of the *Narrative*, and 'Patterson' the gardener. Thunberg's Swedish phrase that Paterson 'war egenteligen Trägardsmästare' ('was in fact a gardener') has a less negative connotation.

From 1777 to 1780 the young Paterson was in South Africa. He was sent there to collect plants for the Countess of Strathmore, Mary Eleanor Bowes (1749-1800). At a later date, Paterson claimed to have collected too for the British Museum and a 'Royal Botanical Society' (see reference in Forbes & Rourke 1980:20). The latter society is enigmatic if indeed it was English, as no such name is known before the founding of the Botanical Society of the British Isles in 1825 (Allen 1978, 1986). Dr D.E.Allen[2] added on my enquiry that he knew of no botanical societies in London between 1725 and ca.1825. I may suggest that this reference possibly was to the Society for Promoting Natural History (precursor of the Linnean Society of London) which 'was founded at "Mr.Dean's, the Corner House by the Turnpike, Pimlico" by, amongst others, William Forsyth' in October 1782 (Allen 1978:46). Paterson had three links with this society, albeit all extremely tenuous. The first was the person of Forsyth. The second was the fact that one small paper by Paterson was read to the members in 1785.[3] The third link is provided by Paterson in his letter of 4 January 1787 to Forsyth in which he commented on the 'great pleasure to see the society in a flourishing state.' If he in fact referred to this Society when claiming to collect for its benefit, he must have meant that he presented it with some botanical specimens after 1782. The Society's founding in 1782 precludes any participation in the

1. Small additional notes on the life or travels are found in Anonymous 1852:328-329, Britten 1920:45-46, Coivin 1912:263-270, Gunn & Codd 1981:273-275, Karsten 1959b:284-285, Maiden 1908:116, Muir 1933a, Willcox 1986:29-32.

2. Dr D.E.Allen, in litt., 27 August 1984.

3. Paper entitled 'On the vegetable poisons of the Cape of Good Hope' read to the Society for the Promotion of Natural History on 13 December 1785, now in the archives of the Linnean Society, London.

planning of the journey.

The main responsibility for Paterson's trip to the Cape of Good Hope, therefore, must lie with Lady Strathmore. She married Lord Strathmore on 24 February 1767, giving him 5 children before his death in 1776. It may be mentioned that Glamis Castle, one of the family's properties, is quite close to Paterson's birthplace. The Lady apparently had a serious interest in botany. She was encouraged in this pursuit by a group of people including Daniel Solander (1733-1782), well-known for his work with Joseph Banks and at the British Museum, and Joseph Planta (1744-1827) who in 1799 became principal librarian at the natural history department of the British Museum. According to a recent biography of Lady Strathmore, these people 'shamelessly battened on Lady Strathmore's hospitality' (Arnold 1957:43) but at least there must have been some benefit to all concerned. To further her botanical studies, the Lady acquired Stanley House in Chelsea, London 'where she built conservatories and hothouses for a valuable collection of exotic plants' (Arnold 1957).

Soon after the decease of Lord Strathmore in 1776, she married Andrew Robinson Stoney in January 1777. This marriage was not a happy one and Stoney took advantage of his wife's wealth. At the same time, he did not allow her to finance her botanical hobbies. This hit Paterson severely. He was already in South Africa when all these complications happened and he obviously was not aware. He continued to spend money assuming that he would be refunded by Lady Strathmore. Before he left the Cape in 1780, he had to borrow £ 900 – a financial disaster well told by Forbes & Rourke (1980:21). All this caused Paterson considerable embarrassment and the whole matter was not resolved until many years later, eventually through the intervention of William Hickey (cf.7.2.7), not Lady Strathmore. In this light it is surprising that Paterson presented at least part of his collections to her, including a giraffe of great value (11.7). Maybe he had still hope of reimbursement?

Paterson stayed in South Africa from May 1777 to 10 March 1780. On his return, he landed in Holland from where he wrote to Thunberg on 11 July 1780, as follows:

Sir,
I take the liberty of acquainting you of my arrival in Holland. I suppose you very well remember seeing me at the Cape of Good Hope when you returned from India. Tho' the time was too short to be well acquainted, I propose sending you a few specimens of plants with the first opportunity which you will find quit new. I have also the pleasure of informing you that I have been at the mouth of the Great River where I have discovered many new species of Geraneums and Staphaelias of which I have preserved both drawings and specimens off. I would begg of you to write to me by the first post and let me know the way of living in your part of the country as I intend to study Bottany and belive Sweeden to be the best place in the world for that branch of natural history.[4] I should there fore begg to know the Expences pr Month of living in a decent maner. There I should be able to communicate to you a description of the northern parts of the great Nimiquas, Iniquas and part of the Briquas. I have wrote to Dr.Solander about this and expect an answer next post. I shall stay some time in Holland, you may direct to me at the English Croun in the Warmoesstraat, Amsterdam. I have also the pleasure of informing you that I have brought with me a perfect skin & skeleton of the Cameleopardas with a true description.[5] Doctor and Mrs. Burmanno joins me with his Comts to you. (signed)[6]

Dr.N.L.Burman, Thunberg's Dutch contact, wrote him on 21 July 1780 about the presence of Paterson 'die Woensdag naer Engeland vertrekt, en my een zeer genieus en hupsch mensch voorkomt.'[7] Thunberg's reply to Paterson's letter is not known.

Paterson's query to Thunberg about studying in Sweden shows his uncertainty about his further career. In the event, he did not stay long in Britain. In the beginning of 1781 he went east again, on the way being enrolled in the 98th regiment under Colonel Fullarton. Eleven of his letters written to Forsyth during this period (1781-1785) have been preserved in the Royal Botanic Gardens, Kew. On 21 June 1781 he was at Saldanha Bay for a few days, but he could not land due to war between England and Holland. He continued his journey to South India where he took part in the second Mysore war. In 1783 he was promoted to Lieutenant, and returned to Britain early in 1785.

Paterson went to live with his parents in Montrose, suffering from a liver complaint 'which keeps me very much at home' (Paterson to Forsyth, 4 January 1787). In 1787 he married Elizabeth Driver. There is no indication how he spent his time in Scotland, but he must have been looking for suitable employment. There is no mention in his correspondence of the publication of the *Narrative* which appeared in 1789. However, on 5 June 1789 he was appointed Captain to recruit and command a company in New South Wales, Australia. Consequently, he arrived on Norfolk Island in October 1791 where he spent some six years. During this period he sent an account on the local flora to Joseph Banks (Forbes & Rourke 1980:28). He was in England in 1797-1799.

He was then elected Fellow of the Royal Society (1797) and the Linnean Society (1799). He returned to Australia in 1799 and acted as Lieutenant-Governor of New South Wales from 1800-1810. He left to go back to England on 12 May 1810, but died during the voyage on 21 June 1810 off Cape Horn.[8]

11.3 BIBLIOGRAPHY

Paterson only published one book, the *Narrative of four journeys*, describing his activities in South Africa. His only other publication is a short account on 'a new electrical fish' (probably *Canthigaster rivulata*) found in the *Philosophical Transactions of the Royal Society* of 1786. He saw and sketched this species 'while at the island of Johanna, one of the Comora islands, on my way to the East Indies, with the 98th regiment' (Paterson 1786).

The *Narrative* appeared 9 years after Paterson's departure from the Cape. He probably had no opportunity earlier to concentrate on this difficult endeavour. On his return to England in July 1780, he only stayed 8 months before leaving again. After his stay in India too, he was busy with his affairs, his marriage and his hope of a new appointment. In his letters to

4. The visit to Sweden never materialised. It is not mentioned again in later correspondence.

5. Paterson only brought one complete specimen of *Giraffa camelopardalis* to England. Its history is told in 11.7.

6. Letter preserved in University Library Uppsala, G 300 u, f.174.

7. Burman to Thunberg, letter in University Library Uppsala, cited by Karsten (1939a:8). Translated: Paterson 'leaves for England next Wednesday and strikes me as a very generous and pleasant man.' Paterson's visit to Holland in 1780 is also mentioned by Vosmaer (1787a).

8. *Gentleman's Magazine*, 80 (2), October 1810, p.386.

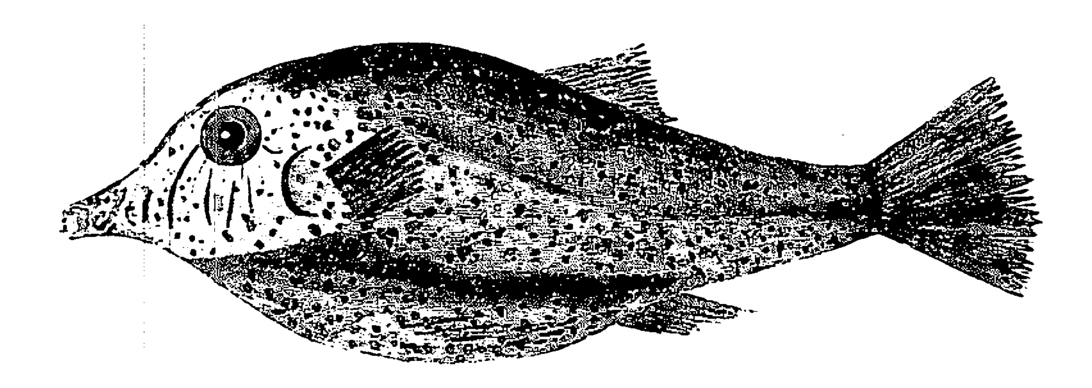


Fig. 85 An electrical fish, drawn by William Paterson on the Comora islands, published in 1786.

Forsyth while staying in Montrose, Scotland, dated between September 1786 and August 1787, there is no reference at all to plans of publishing a book. After such a long period, it is likely that Paterson had to rely on his supposed diary kept during the expeditions in the Cape interior. There are many differences in style as well as in the spelling of place-names between the *Narrative* and the manuscript account in the Brenthurst Library. They must represent two distinct attempts to revise the text of the diary or fieldnotes. Duckworth (1957) and Forbes & Rourke (1980) suggested that the published account was largely the work of a ghostwriter or editor. This cannot be further substantiated.

The *Narrative* is a thin quarto volume first published in 1789 by Joseph Johnson in London. It was dedicated to Joseph Banks. This first edition has some 175 pages of text, one fold-out map and 17 plates. A second edition followed in 1790, 'corrected' according to the title-page. The corrections apparently were very minor and consist of a few small additions or clarifications, the renumbering of pages vii and viii, and the addition of two plates (Forbes & Rourke 1980:44). The book presented the facts about the expeditions unadorned by anecdotes. The geographical content is not particularly remarkable (Forbes 1965:83). Its contribution to the knowledge of Cape fauna is equally slight as Paterson only occasionally recorded the presence of a certain animal. Three species were described in some detail: the lion (p.33), the hartebeest (p.82) and the giraffe (p.126).

The map was copied from the English edition of Sparrman's book of 1785. Paterson added a few details in the regions beyond the Great Fish River in the east, and beyond the Orange River in the north. The latitudes in the margins were mistakingly shifted about 20 minutes northwards compared with Sparrman's original (Forbes 1965:81, Forbes & Rourke 1980:44).

The first edition of the *Narrative* contained 17 plates, the second edition had 19. Those in the first edition, according to Forbes & Rourke (1980:44), were 'occasionally' hand-coloured. Maybe by chance, this is true in all copies which I have examined.[9] All plates in both editions were listed and illustrated by Kennedy (1976, nos. P3-P21). Out of the 17 plates in the first edition, two depicted people, 13 plants and 2 animals. The second edition added a plant and a snake. The three zoological plates are as follows.

(facing p.125) 'Camelopardalis' showing a lateral view of a giraffe *Giraffa camelopardalis*, and a detail of its head.
(facing p.126) 'Loxia, nova species' showing *Philetairus socius* perched on a branch of *Acacia erioloba*.
(facing p.120, 2nd ed.only) 'Horned snake' showing *Bitis cornuta*.

All plates of the first edition are imprinted 'Published March 30, 1789, by J.Johnson in St.Paul's Churchyard.' On the additional plates of the second edition the date is 'June 21st 1790'. Kennedy (1976,P17) recorded a similar engraving of the giraffe imprinted 'Published Jan.y 1, 1791, by J.Johnson in St.Paul's Church Yard & L.Stalker, Stationers Court' (in the Africana Museum, Johannesburg).

The originals of the plates are unknown, with one exception. The plate of the giraffe is a mirror-image likeness of a coloured drawing preserved in the Hunterian Drawing book (II,p.171) in the library of the Royal College of Surgeons of England, London (Dobson 1959:124 and 1971, fig.16). None of the drawings in the 'Paterson Albums' (11.5) has its equivalent among the published plates. The artist of the plates is not recorded. Two plates, however, are similar to drawings in other contemporary collections (Dyer 1949, Forbes & Rourke 1980), i.e.

Paterson 1789:62 'Euphorbia, part of the stem and flowers' with a similar drawing in Levaillant's collection in Cape Town (CT 142),
Paterson 1789:124 'Pentandria monogynia' with similar drawings in Levaillant's collection in Cape Town (CT 164) and in the Gordon Atlas.

It appears likely that both Paterson and Levaillant received the original drawings from R.J.Gordon (11.5, see also 7.6).

As mentioned by Forbes & Rourke (1980:45), the *Narrative* went through 8 French editions of at least two different translations; six appeared in 1790-1792, one in 1809, one in 1842. There was one German translation prepared by Johann Reinhold Forster, where the dedication, to Herr von Wöllner, is signed and dated 5 September 1789. This edition included only 16 plates, one of which is the map, hence two from the English first edition were excluded, one of which was the giraffe. It is a faithful translation with few additional notes by Forster.

9. Copies of the 1789 edition of the *Narrative* were consulted in the Botanical Research Institute, Pretoria; Africana Museum, Johannesburg; library of the University of Amsterdam. All have coloured plates. Another coloured copy is recorded by Hosken & Hosken (1981:155).

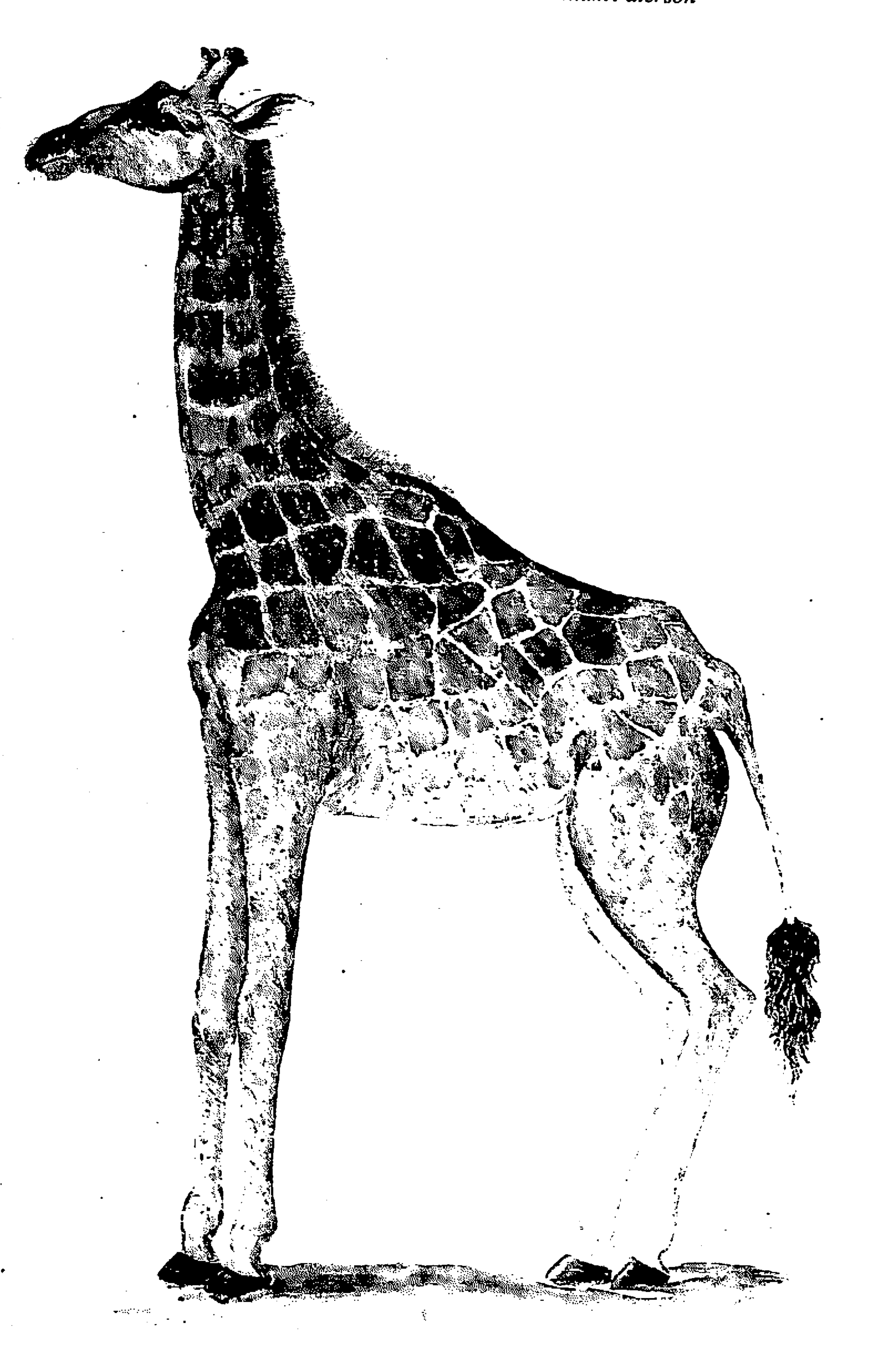


Fig. 86 Giraffe *(Giraffa camelopardalis)*, coloured drawing of the specimen in the collection of William Hunter, later copied for the engraving in Paterson (1789).

11.4 THE BRENTHURST MANUSCRIPT

This manuscript covers the same ground as Paterson's *Narrative*. It was described, transcribed and annotated by Forbes & Rourke (1980). The manuscript, a bound volume (27,5 x 21,6 cm) with 178 pages is preserved in the Brenthurst Library, Johannesburg. Inside the front cover there is the name of Paterson's widow after her second marriage to Francis Grose, 'Grose' and probably quite unconnected, '9/91' (? September 1791). In the right upper corner of the flyleaf there is the signature of 'William Paterson'. All text of the manuscript is in Paterson's own handwriting (one page is reproduced by Forbes & Rourke 1980:42). The text can be divided into four parts:

(a) The account of the expeditions into the South African interior. The pages are numbered 1-72 but pages 43 and 45 are blank. The first journey occupies 11 pages, the second

21 pages, the third 12 pages and the fourth 26 pages.

(b) 'Observations of the Thermometer kept on Second Journey from the 22nd May 1778 to the 18 Novr. 1778' (signed) 'Cape of Good Hope 22 May 1778. W.P.' This occupies 27 numbered pages. It was printed as an appendix in Paterson (1789).

(c) Metereological observations of the journey from False Bay to New South Wales, 17 August - 12 October 1791, on 9 unnumbered pages.

(d) Metereological observations in Port Dalrymple (Tasmania) from 18 November 1804 to 22 November 1805, on 53 unnumbered pages.

From the analysis presented by Forbes & Rourke (1980) it appears that the first part of the manuscript covering the four expeditions and the published *Narrative* represented separate attempts to revise a now unknown diary with fieldnotes. The reason for composing the manuscript is obscure. Possibly, Paterson sent it to some of his friends to inform them about his adventures, or maybe he used it to get a publisher interested in its publication. Obviously the copy was returned to him since some later metereological notes were recorded in the same volume. The first part of the manuscript must have been written between 1780 and 1785 (Forbes & Rourke 1980:49). The first date is taken from its first sentence where Paterson referred to R.J.Gordon as 'commander and chief', a position attained on 22 February 1780. The latter date is based on the absence of references in the manuscript to the book by Sparrman (English edition of 1785) which do occur in the *Narrative*.

Ths history of the volume is not known. Relying on the name of 'Grose' on the inside cover, it must have remained with Paterson's widow after his death. The volume was rediscovered on 19 December 1956, quite by accident, by Rev. Dennis Duckworth in the strongroom of the General Conference of the New Church, at its headquarters at Swedenborg House, Bloomsbury, London (Duckworth 1957). It was auctioned at Sotheby's on 19 December 1960 (Sotheby 1960:46, lot 259) and bought for £ 750 by Messr.Chas.J.Sawyer, booksellers London, on behalf of Mr H.F.Oppenheimer. He preserved it in his Brenthurst Library and occasioned its publication edited by Forbes & Rourke (1980) with many illustrations taken from the Paterson Albums in the same depository.

11.5 THE PATERSON ALBUMS

11.5.1 *History*

The Brenthurst Library, Johannesburg, contains a set of three albums with drawings (no. ART 144/1) associated with William Paterson. It is described by Forbes & Rourke (1980) where 60 of the drawings are illustrated in colour. In total there are 304 drawings. Album 1 contains 118 drawings depicting people, scenery and animals, albums 2 and 3 have 97 and 89 drawings respectively all showing plants. On the spine of each album there is printed 'Paterson's Drawings' in capital gilt letters followed by 1. Animals, 2. Plants and 3. Plants. This is the only indication which points directly at Paterson's involvement. However, according to the analysis by Forbes & Rourke (1980:50), two drawings of fishes were signed by Paterson, while none of the others would conflict with the assumed connection with Paterson.

Inside the front cover of each album is the bookplate of Sir Robert Heron (1765-1847), member of parliament for Peterborough from 1819-1847. The only apparent reason why Heron possessed the albums was his interest in animals. He lived in or near Stubton, Lincolnshire, where he kept all kinds of live animals, including foreign ones like emus, kangaroos, rheas, llamas, alpacas, nylghais, jerboas, armadillos, etc.[10] It is unknown what happened to the albums after the death of Sir Heron. The drawings appeared again in 1929 in a sales catalogue of Francis Edwards Ltd. London (No.520, lot 410). They were bought by Sir Ernest Oppenheimer in 1930 and have remained in his library since that time. I have been able to study this collection from a set of monochrome photographs of the animal drawings kindly provided by Mr H.F.Oppenheimer.

11.5.2 *The artist*

The question about the identity of the artist or artists responsible for the drawings of the Paterson Albums is both complex and unresolved. The matter was discussed in detail by Forbes & Rourke (1980). The collection is sufficiently varied both in subject matter and execution to conclude safely that more than one artist was involved. Paterson himself is not known to have made drawings on a regular basis. In his writings he never referred to drawings made or assembled in South Africa. In fact, the only definite evidence of him as a draughtsman is in his published letter on the electrical fish, where he stated to have drawn the plate himself (Paterson 1786).

Paterson later made a collection of drawings in India, which can be here discussed briefly because it may shed some light on him as an artist. He made some remarks about these drawings in his letters to William Forsyth. On 20 June 1783, he wrote from Trichinopoly that the fighting had prevented him from collecting plants or seeds, while he had 'been able to make about 100 drawings many of which I am certain are not in the Hortus Malabaricus.' He was quite happy with those drawings, as on 21 December 1783 he wrote from Coimbatore 'that I have succeeded very well indeed & I flatter myself if no accident happens that they will astonish you when you see them.' When he was waiting to return home, he wrote on 23 December 1783 from Porto Nova:

> and I may venture to say that should I have the good fortune of getting everything safe home, that such a collection was never yet brought into England, particularly the Gentoo architecture and some of the most famous buildings in India, also these of different gods & godesses, both in drawing & in copper with some part of their history, and also a description of the world by the Bremmins [= Brahmins] and also a tolerable collection of drawings of plants, birds, &c.[11]

Considering these passages, one may conjecture that this Indian collection contained several hundreds of sketches representing buildings as well as animals and plants. Paterson stated to have 'made' the drawings, which of course, would establish him as an active and important artist. It must be agreed, however, that the evidence is very slight. Paterson could have meant that he made the drawings by acquiring or commissioning them. Paterson showed his collection in London, as appears from two sources. In an undated letter to Thomas Pennant (1726-1798) in

10. The information about the menagerie of Sir Robert Heron is based on a letter by Mr C.H.Keeling, Guildford, 11 December 1986.

11. Kew Ms., Paterson to Forsyth, 23 December 1783.

f. 9.

the library at Vergelegen, Somerset West (reproduced by Forbes & Rourke 1980:24, 26) Paterson wrote: 'I was last night with the Royal & Antiquies Society showing my drawings of the Indian buildings.' John Latham in his *General Synopsis of Birds* (Supplement, 1787:124, 125, 147) recorded three Indian species, the Blue and the Red-billed Promerops and the Indian coly, of which a representation was found 'among the drawings of Captain Paterson.' The description of the 'Red-billed Promerops' was the basis of Latham's (1790,I:280) *Upupa indica.* The subsequent fate of Paterson's Indian drawings is not known. They were not included among the drawings used by Latham discussed by Sawyer (1949). It is important to realise, however, that the Paterson Albums contain drawings of 85 plants and 12 animals unknown from South Africa. Some of these might once have been part of the Indian collection.

From the available evidence, it must be concluded, as did Forbes & Rourke (1980:55), that Paterson 'drew few if any' of the drawings in the Paterson Albums. Muir (1933a) on the other hand commented upon Paterson's considerable talent and great skill as draughtsman, but his statement may only have taken into account the existence of the Paterson Albums. If Paterson assembled the drawings during his visits to South Africa and India, there is no need to look for a single responsible artist. Their origins may be quite mixed, which is also the case with many other contemporary collections of drawings. I am unable to identify the artists on the basis of styles alone. It is, therefore, only possible to look at the little evidence available from other considerations.

Signed drawings. Besides the two sketches signed by Paterson, only three others have names attached to them. Album 1 folio 55 of an Indian bird was shot by P.A.Agnew, but not necessarily painted by him. Album 1 folio 117 of a baboon spider and Album 2 folio 80 of an exotic plant were signed by 'C.Spyer', a name not known in this context.

Identical drawings in Gordon Atlas. In Album 1 there are 14 drawings with (near-)identical counterparts in the Gordon Atlas. Twelve of these are enumerated by Forbes & Rourke (1980:55), to which should be added f.18 (= GA 197) and f.31 (= GA 221). Among the plants there are 9 occurring both in the Paterson Albums and the Gordon Atlas (Forbes & Rourke 1980:178). Gordon's artist was Johannes Schumacher (see 7.6). Still, Forbes & Rourke (1980:53) conclude that 'Schumacher made no contribution to the three Paterson Albums.' They base this on the assumption that Gordon employed two artists, Schumacher for the scenery and another for natural history. I cannot subscribe to this view (7.6) and, on the little available evidence, I would attribute the identical drawings to Gordon and Schumacher (as did Gunn & Codd 1981:274).

Identical drawings of Levaillant's work. There are 12 equivalent plant drawings in the Paterson Albums and the Cape Town collection associated with Levaillant (Forbes & Rourke 1980:41). It seems fair to assume that both men received these sketches from R.J.Gordon.

Drawings made during the expeditions. Some drawings, especially some with scenery and plants, must have been prepared during Paterson's expeditions into the interior. During the first journey, he was accompanied by Gordon and his draughtsman, Schumacher. However the majority of the drawings, especially the better ones, must be associated with the second and fourth expeditions to the north (Forbes & Rourke 1980:38). In 1823, Thompson ([1827] 1968,II:73) met a schoolmaster by name of Martin[12] who claimed to have travelled with Paterson. However, it does not follow that he was an artist and the same is true for the Van Reenens who accompanied Paterson (see 11.6.2, 11.6.3).

The identity of the artist(s) responsible for the drawings in the Paterson Albums therefore remains unclear. Maybe further information might reveal some clues to solve this unfortunate situation.

11.5.3 *Contents*

All drawings were described and the animal or plant species identified by Forbes & Rourke (1980:173-177). The animal drawings are mentioned again here adding some notes about peculiarities of the drawings, and comparisons with other collections like the Gordon Atlas (GA). Some of the drawings were recently reproduced which has been noted: those in Forbes & Rourke (1980) as 'F&R' with page/plate number, and those in Nicol (1982) as 'N' with page number.

PA 17 *Diceros bicornis* (Repr.: F&R 19, pl.4, N 43, Rookmaaker 1985a, fig.19): A copy of the black rhinoceros in the Gordon Atlas (GA 205) but the shape of the anterior horn is somewhat different.

PA 18 *Hippopotamus amphibius* (Repr.: N 23 in part): This is a lateral view of a male hippopotamus. In the lower right corner there is a small sketch of the animal's tail. The drawing bears a number 'No 56' and on top the following explanation: 'de Rüg is braun-blau/en de Beück is blauagtig/ de beene sijn blauwittagtig. het is eene blauagtige viss coleur. de haare en de snut sijn brün. de ooren sijn ligte-brüne haare van binnen en buiten.[13] A much similar drawing of the animal only is GA 197, while the tail is shown on GA 201. These drawings in the Gordon Atlas are finished products with the neat script of a scribe. The present PA drawing is a sketch with the text in the peculiar Dutch/German mixture which I have attributed to Schumacher (7.6).

PA 19 *Hippopotamus amphibius*: two views of the penis, like GA 203. There is no explanation or lettering, except an indication of the colour, in the same handwriting as PA 18 'witt geelagtig' (white yellowish) written on the extended penis, 'blau' (blue) on the sheath.

PA 20 ? *Taurotragus oryx* (Repr.: N 49): an antelope labelled (in English) 'a young Elk.' The animal as such cannot be identified; the name 'elk' suggests *Taurotragus oryx.* These words probably were written by Paterson.

PA 21 *Antidorcas marsupialis*: male, lateral view, no legend.

PA 22 *Antidorcas marsupialis*: female, lateral view, no legend.

PA 23 *Sylvicapra grimmia*: lateral view of a small antelope. I suggest that the animal resembles the common duiker with an indication of the black upper part of the muzzle, the preorbital gland and the short straight horns.

12. Taurinus (1800,II:333) also mentioned a corporal from Hannover named 'Mardens' said to have accompanied R.J.Gordon (see 7.6.2).

13. Translation: 'the back is brownish-blue, and the belly blueish, the legs are whitish-blue. It is a blueish fish colour. The hairs and the face are brown. The ears are (have) light brown hairs on the inside and the outside.'

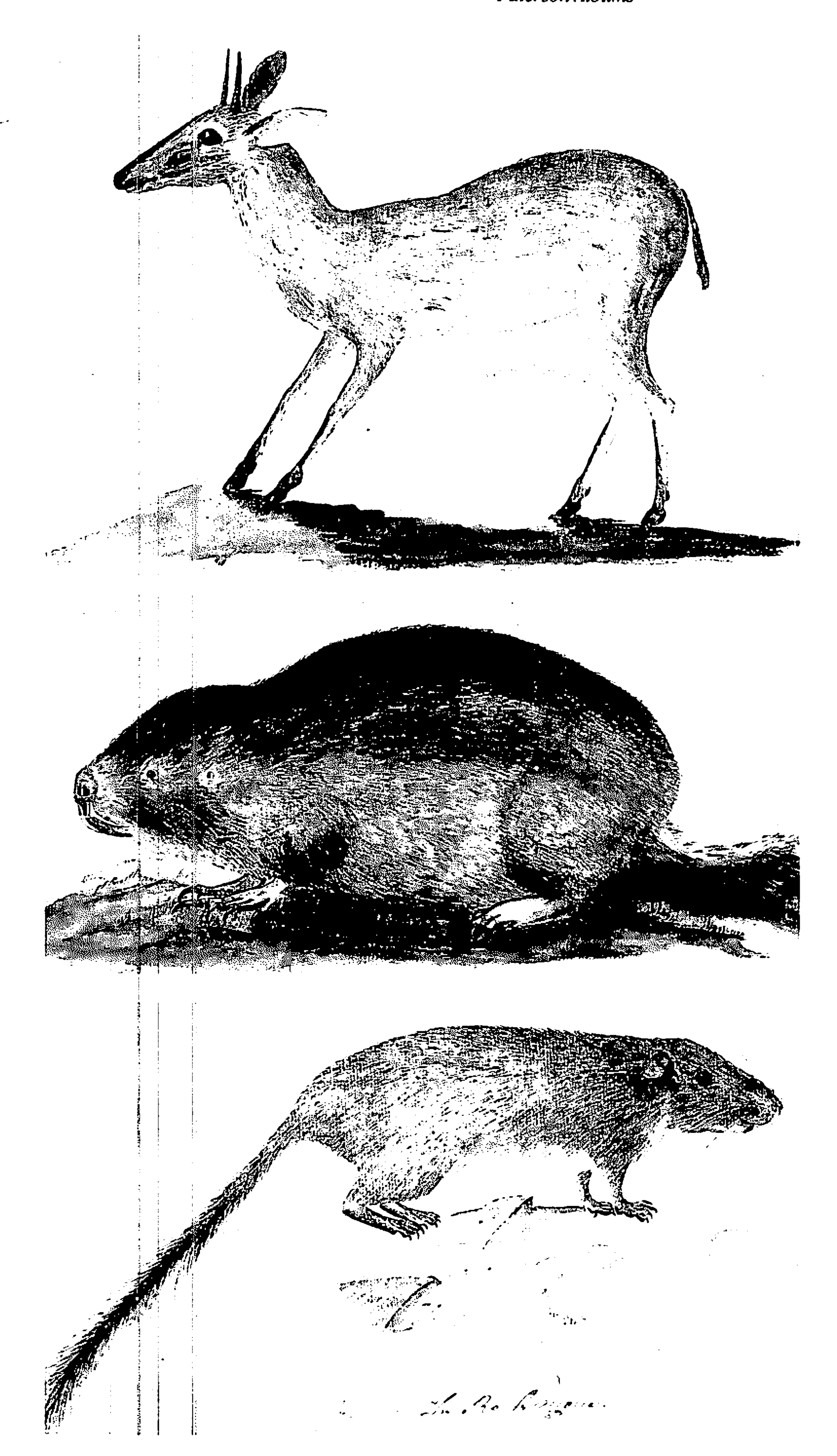


Fig. 87 Duiker *(Sylvicapra grimmia)*, in the Paterson Albums (PA 23).

Fig. 88 Cape dune molerat *(Bathyergus suillus)*, in the Paterson Albums (PA 30).

Fig. 89 Dassie rat *(Petromus typicus)*, in the Paterson Albums (PA 32).

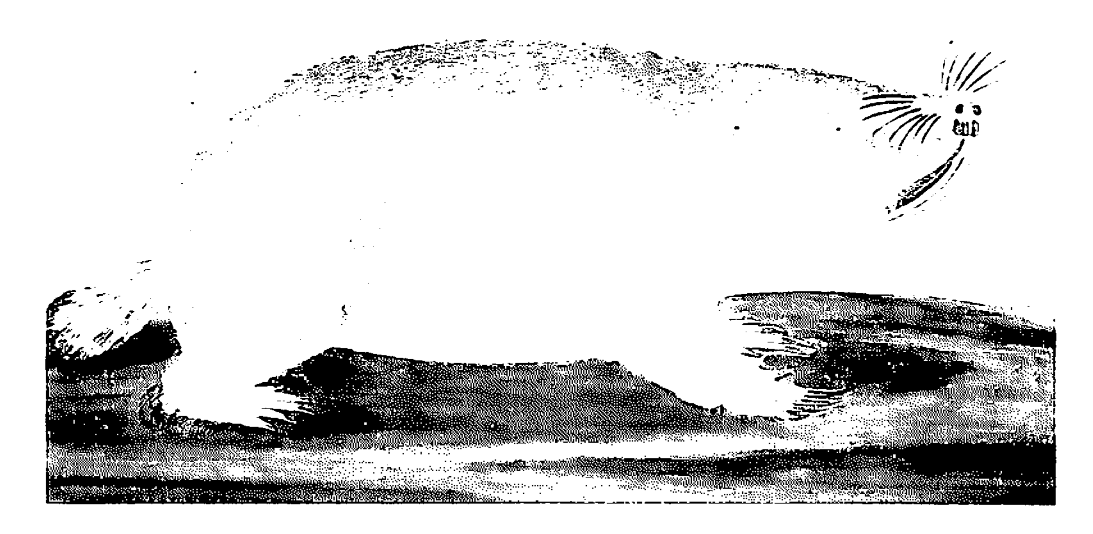


Fig. 90 Gordon Atlas (GA 216): Cape dune molerat *(Bathyergus suillus).*

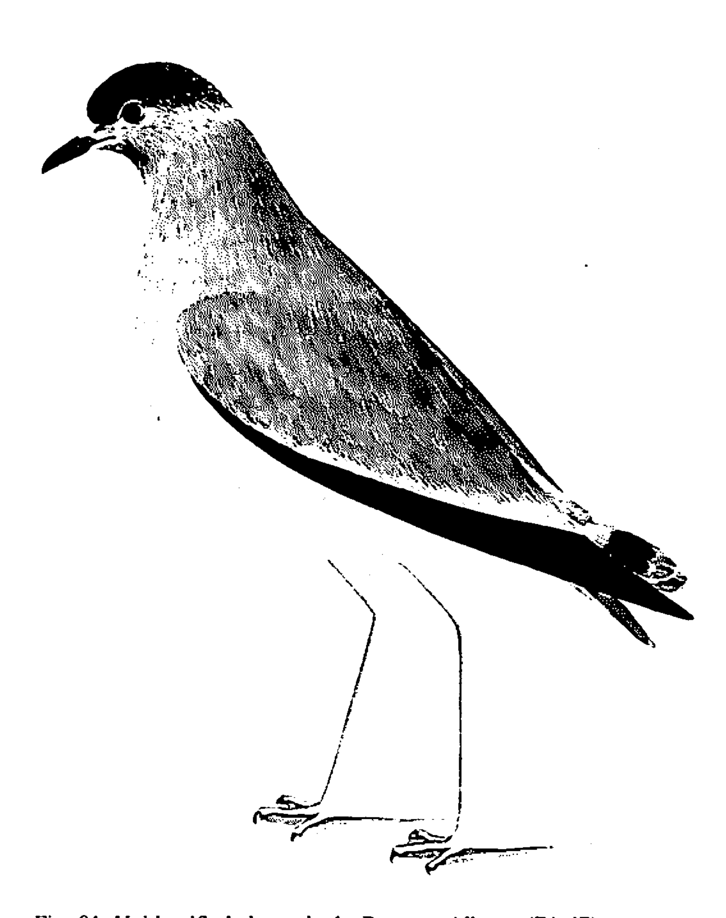


Fig. 91 Unidentified plover, in the Paterson Albums (PA 47).

PA 24 *Alcelaphus buselaphus* (Repr.: F&R 71, pl.21, N 9): sketch of a 'Capra dorcas', obviously a hartebeest of which only one species inhabits the Cape Province.

PA 25 *Panthera pardus*: lateral view of a sitting young leopard.

PA 26 *Presbytis entellus*: a monkey standing on its four feet, with 'A Scale of Three Feet.' The animal's body is about 2 feet long, the tail 3 feet. Rather a nice picture of the common langur of India with its light body and black face.

PA 27 *Arctocebus calabarensis*: a potto, from West Africa, without tail, sitting in a tree with leaves.

PA 28 *Xerus inauris* (Repr.: F&R 16, pl.3, N 55): lateral view of this squirrel, with indistinct side-stripes, large scrotum and tail bent forwards on top of the body.

PA 29 *Lepus capensis* (?): a hare called 'the Rock hare' in Paterson's handwriting. The species cannot be identified with certainty, but the Cape hare is the most likely candidate.

PA 30 *Bathyergus suillus* (Repr.: F&R 78, pl.23, N 15): lateral view.

PA 31 ? *Otomys* sp.: lateral view of a rodent which is difficult to identify. Practically the same drawing is found in GA 221.

PA 32 *Petromus typicus*: lateral view called 'the Rock mouse' in Paterson's handwriting.

PA 33 Not identified: an unfinished sketch of a mouse or rat lying on the outline of a small table. It cannot be identified.

PA 34 *Macroscelides proboscideus*: lateral view of an elephant shrew standing on some grass. It is similar to GA 230 but the details in the latter are better executed.

PA 35 *Macroscelides proboscideus*: two elephant shrews looking to the right. They resemble the animals on GA 231, but in PA 35 the hairs extend about a quarter of the tail length (absent in GA 231).

PA 36 *Bathyergus janetta*: lateral view.

PA 37 ? *Eidolon helvum* (Repr.: F&R 56, pl.17, N 19): male of a fruitbat. The species cannot be identified with certainty. If the animal was in fact painted in South Africa, it could be either *Eidolon helvum* (a rare migrant in the Cape Colony) or *Rousettus aegyptiacus leachii.*

PA 38 ? *Eidolon helvum*: female, like PA 37, without the external penis.

PA 39 *Bubo* sp.: an owl with crests ('ears') and feathered legs.

PA 40 *Bubo capensis* (Repr. N 17): an owl different from PA 39. Probably *B.capensis* but maybe *Bubo africanus.*

PA 41 *Neophron percnopterus* (Repr.: N 51): finished drawing.

PA 42 *Botaurus stellaris*: a rather bad picture of a heron in an unnatural position. The neck is long and lightly spotted, the wings are more heavily spotted. The upper parts of the legs are

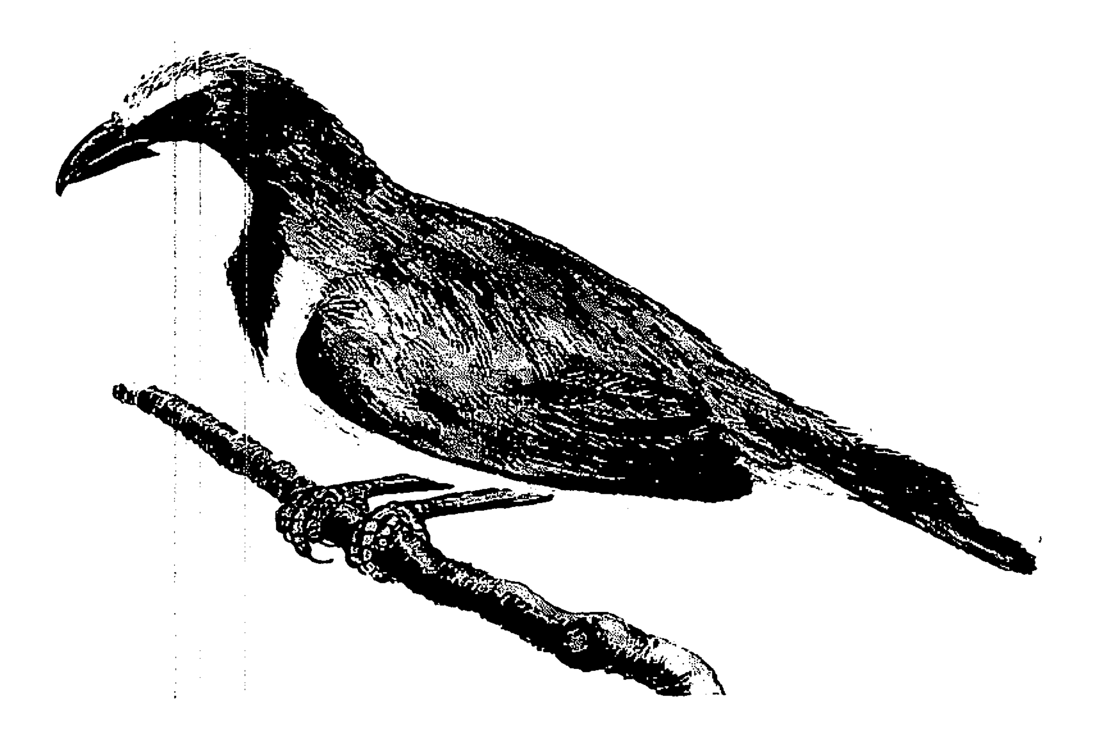


Fig. 92 Bokmakierie *(Telophorus zeylonus)*, in the Paterson Albums (PA 53).

feathered.

PA 43 *Porphyrio porphyrio* (Repr.: N 21): sketch.

PA 44 *Francolinus capensis*: bird only, not well depicted and the identity is uncertain.

PA 45 *Tauraco corythaix* (Repr.: F&R 126, pl.42, N 28): the bird is perched on a grill with roots attached.

PA 46 *Elanus caeruleus*: the bird is only partly finished.

PA 47 *Vanellus* sp.: a kind of plover with its long legs, a short bi-coloured bill, dark forehead and crown and partly dark feathers. If the bird is South African, it should be *Vanellus coronatus* but it lacks the dark breastband and the white ring around the crown.

PA 48 *Pterocles namaqua*: a poor picture of the sandgrouse with the characteristic wedge-shaped tail.

PA 49 *Cuculus solitarius*: unfinished drawing, bird sitting on a piece of wood.

PA 50 *Oriolus larvatus*: sketch of oriole with a black head and upper breast.

PA 51 *Dicrurus adsimilis*: black bird with fork-shaped tail.

PA 52 *Lamprotornis nitens*: bird perched on a small branch.

PA 53 *Telophorus zeylonus*.

PA 54 *Pitta angolensis*: a name is written on the drawing 'Breve or Baffen' (?) (Forbes & Rourke 1980:174). It could be *Pitta angolensis* although it is presently only known as an occasional vagrant in the Cape Province. The drawing obviously shows the body of a dead bird.

PA 55 Not identified: a bird 'Shot in the jungle near Trisoor [?], Decr. 27, 1788 [?] [signed] P.A.Agnew, Trivanderum March 14th 17..' (Forbes & Rourke 1980:157).

PA 56 *Merops apiaster*.

PA 57 *Phoeniculus purpureus*: rough sketch.

PA 58 *Caprimulgus* sp.: a reasonably well executed drawing of a nightjar, but there is not enough detail to decide which species is shown.

PA 59 *Euplectes progne*: male long-tailed widow seated on the same kind of structure as the bird on PA 45.

PA 60 *Urocolius indicus*.

PA 61 *Euplectes orix*: the bird sits on a branch, below its egg is shown.

PA 62 ? *Sturnus pagodarum*: bird not known from South Africa.

PA 63 *Oriolus oriolus* (Repr. F&R 13, pl.1, N 37): the male.

PA 64 *Oriolus oriolus*: the female.

PA 65 *Pitta brachyura* (Repr.: F&R 27, pl.7): an Indian bird.

PA 66 *Euplectes progne*: on a branch.

PA 67 *Oena capensis*: male.

PA 68 *Merops hirundineus*: on a branch.

PA 69 *Chrysococcyx klaas*: a rather poor picture of a cuckoo probably made from a stuffed specimen. The small white patch behind the eye instead of a white eyebrow may indicate the present species.

PA 70 *Colius striatus*.

PA 71 *Megalaima haemacephala*: an Asian bird.

PA 72 *Oenanthe pileata*: 'the nightingale of the Cape'. The drawing differs from that of the same species in GA 255.

PA 73 *Saxicola torquata*: on a branch.

PA 74 *Batis pririt*: on a branch, not a very good sketch.

PA 75 Not identified: Forbes & Rourke (1980) call it a passerine bird. It is a small animal with long legs, a dark patch around the eye and a pointed bill.

PA 76 *Estrilda astrild*: on a branch.

PA 77 Not identified: this bird is not known from South Africa judging from its appearance. The branch is only sketched in pencil.

PA 78 *Nectarinia famosa*: different from the same species on GA 275.

PA 79 *Nectarinia chalybea*: on a branch.

PA 80 Not identified: a sunbird with a long bill and long tail, but not drawn well enough to allow identification.



Fig. 93 Malachite sunbird *(Nectarinia famosa)*, in the Paterson Albums (PA 78).

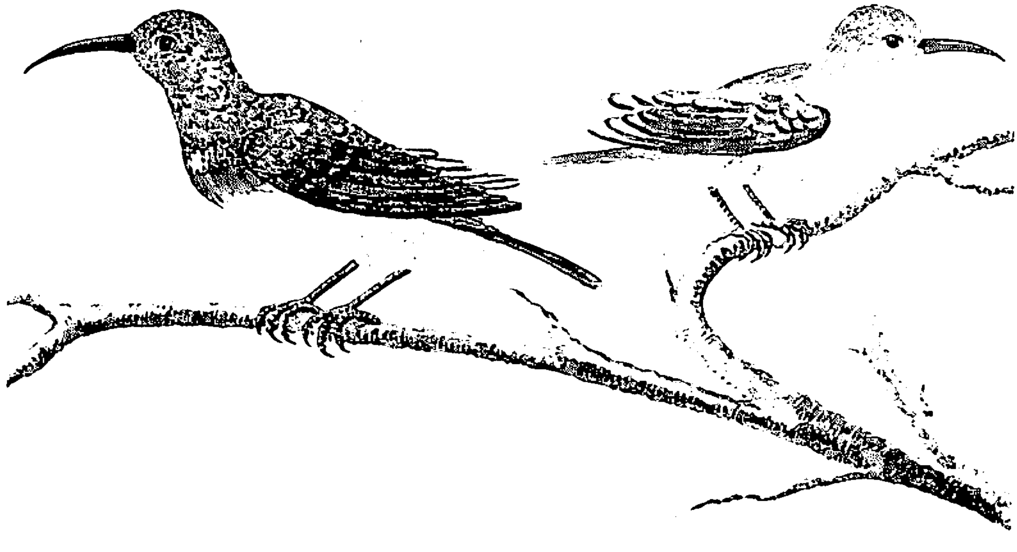


Fig. 94 Greater doublecollared sunbird *(Nectarinia afra)*, in the Paterson Albums (PA 81).

PA 81 *Nectarinia afra*: two birds, male on the left, female on the right, perched on a branch. This watercolour is very much like the depiction of the same bird in GA 280.

PA 82 *Alcedo cristata*: on a branch.

PA 83 *Rostratula benghalensis*: drawing of a dead bird.

PA 84 *Calidris ferruginea*: a wader facing left. It is much similar to GA 327 but the latter adds a scale and two measurements in writing. Forbes & Rourke (1980:174) identify the bird as *Tringa nebularia*, but it lacks the slightly upturned bill; in GA 327 the legs are greyish, not green.

PA 85 and PA 86 *Threskiornis aethiopicus*: PA 85 is labelled 'Mascul:', PA 86 'Fem'. The latter differs in its white neck with black spots, present in immature specimens, not females. GA 321 shows the same species in a generally similar position as PA 85, with some differences: GA 321 has more black on the neck, and a straight line dividing the black and the white feathers; more black feathers on the back, and comparatively longer legs and toes.

PA 87 *Gallinula chloropus*: the bird is in a rather strange position, possibly drawn after a dead specimen.

PA 88 *Amaurornis flavirostris*: perched on a branch.

PA 89 *Ardea cinerea*: different from GA 317

PA 90 *Eupodotis afra*.

PA 91 *Phoenicopterus ruber*: labelled 'flamingo'. It is rather similar to GA 340 with only slight differences. The background too shows some similarity.

PA 92 *Phoeniconaias minor*: bird only, similar to GA 339.

PA 93 *Recurvirostra avosetta*: bird only facing right, la-

belled in pencil 'Recurvirostra avosetta'. It is similar to GA 326 which does have background.

PA 94 *Labeo umbratus* (Repr.: F&R 155, pl. 54, N 3): 'Length 16 inches, Mouth of the Orange River, Cape of Good Hope' in Paterson's hand. A similar drawing is GA 112.

PA 95 Not identified: a fish 'Scale of 14 inches' in Paterson's hand, presumably not South African.

PA 96 Not identified: a marine fish.

PA 97 *Liza richardsoni* (Repr.: F&R 122, N 33): a mullet, 'Length 10 duym Rijnl' (handwriting not identified), similar to GA 110.

PA 98 Not identified: a fish drawn on top of a bookcover.

PA 99 Not identified: a marine fish.

PA 100 *Osbeckia scripta.*

PA 101 Not identified: a small fish.

PA 102 *Alutera monoceros*: 'Caught in Lat.d 7 North, long.t 56 East'.

PA 103 Not identified: fish drawn on St.Iago, 1781.

PA 104 *Zanellus* sp.

PA 105 *Lupa pelagica* (Repr.: F&R 79, pl.20): a swimming crab.

PA 106 *Chamaleo* sp. (Repr.: F&R 73, pl.22, N 13): chameleon.

PA 107 *Varanus niloticus* (Repr.: F&R 129, pl.44, N 31): nile monitor.

PA 108 *Agama* sp.: lizard.

PA 109 Not identified: a lizard.

PA 110 *Bitis arietans* (Repr.: F&R 14, pl. 2, N 39): puff adder.

PA 111 Not identified: snake, unfinished.

PA 112 Not identified: snake, unfinished.

PA 113 *Aspidelaps lubricus* (Repr.: F&R 65, pl. 19, N 45): a coral snake.

PA 114 Not identified: a snake.

PA 115 Not identified: toad grasshopper.

PA 116 Not identified: giant water bug (Repr.: F&R 30, pl. 8, N 53).

PA 117 *Harpactira* sp. (Repr.: F&R 133, pl. 46, N 11): baboon spider, with text 'The natural size, C.Spyer'.

PA 118 Five small drawings of a mantis, a centipede and 3 beetles.

11.6 THE FOUR JOURNEYS

Paterson was at the Cape of Good Hope from May 1777 to 10 March 1780. During this time he made four expeditions into the interior. The main sources about these travels are his *Narrative* of 1789 and his undated manuscript now in the Brenthurst Library (11.4). The routes of the journeys have been traced by Forbes (1965) and Forbes & Rourke (1980). The accounts sometimes mention the presence of animals. These indications have been collected here. I refer to a page in Paterson (1789) as '1789:...' and to the manuscript account as published by Forbes & Rourke as '1980:...'. Absence of one of these references means that the species is not mentioned in that account.

11.6.1 *The first journey*

Paterson accompanied R.J.Gordon on the outward journey and returned to the Cape on his own. He was away from the Cape from 5 October 1777 until 13 January 1778, about 3 months. Forbes & Rourke (1980:60) traced the route on a modern map. The outward journey went via Somerset West to Caledon, Swellendam and Oudshoorn to Beervlei on the Groot River near the junction of the Sout and Kariega Rivers. Paterson returned to Oudshoorn roughly along the same route, continuing through the Attaquas Kloof to Mosselbay, via Riversdale to Swellendam and back to Cape Town.

[1] Table Bay, Cape Town
On the day of departure, 5 October 1777, some 500 or 600 'porpoises' landed on the shore (1789:5, 1980:59). These could have been tuna fishes or some kind of dolphin. There were also 'sword fish' (1789:5, 1980:59).

[2] 8 October 1777; Vergelegen, near Somerset West 34°4'S, 18°53'E
Crocuta crocuta, hyena: heard howling nearby (1789:6, 1980:61).
Naja nivea, 'Cooper capel' found 'as we was bottenising along a hillock under the Hottentots Hollands Kloof' on 9 October 1777 (Ms. among Forsyth letters, Kew).

[3] 12 October 1777; Steenbras River 34°12'S, 18°50'E
Papio ursinus, 'large heard of baboons', none killed (Ms. among Forsyth letters, Kew).

[4] 13 October 1777; Cape Hangklip 34°22'S, 18°49'E
Taurotragus oryx, 'eland' (1789:10), 'elans' (1980:63): tracks. Forster (1790a:12) added '*Antelope oryx*'.
Syncerus caffer, buffaloes (1789:9, 1980:63): tracks, just north of Cape Hangklip and also near the Cape 'we saw a large herd of Buffeloes which were grazing, but they had seen us from far' (1980:66).
Panthera leo. At a later date, while at Houhoek (34°13'S, 19°10'E) Paterson met a gentleman who said that he had passed a place 'the day before where a large lion had been shot' (1789:12, 1980:66). As suggested by Forbes & Rourke (1980:89, note 66) this may refer to the specimen seen by Gordon at the house of Hendrik Vollenhoven in Hessequas Kloof (see 7.7.1, no.6).

[5] 13 October 1777; Swart Berg or Caledon 34°14'S, 19°27'E
Damaliscus d.dorcas, 'bonta bock' (1789:12).
Francolinus sp., 'partridges' (1789:12).

[6] between Caledon and Swellendam c. 34°7'S, 20°10'E
Damaliscus d.dorcas, 'bonta bock' in herds (1789:17, 1980:68).
Equus zebra, 'zebra' (l.c.).
Panthera leo, tracks of lions (l.c.)

[7] 20 October 1777; Rietvallei (present Oupos) 34°2'S, 20°37'E
Damaliscus d.dorcas, hunting of 'Bonte Bock, an animal peculiar to this part of the country' (1789:21, 1980:68). Forster (1790a:16) called it *Antelope scripta*.
Alcelaphus buselaphus, 'Capra Dorcas of Linnaeus' (1789:21, 1980:70) which meant the hartebeest as depicted on PA 24 and described in 1789:81.
Equus zebra, mentioned by this name (1789:21).
Francolinus levaillantii, 'red partridge' (1980:70).
Francolinus africanus, 'gray-winged partridge' (1980:70). In 1789:21 only 'partridges' are mentioned.
Francolinus capensis, 'pheasants of two sorts' (1980:70).

[8] 2 November 1777; Toorwater 33°25'S, 23°7'E
Struthio camelus, 'ostriches' (1789:27, 1980:74), again seen in this place on 10 December 1777 (1980:76).
Tragelaphus strepsiceros, 'koedoe' (1789:27, 1980:74), one was shot; the *Narrative* included a short description.

[9] 3 and 23 November 1777; Beervlei (near Willowmore) 33°5'S, 23°30'E
Panthera leo, tracks of lion (1980:74). On 23 November 1777 a lion was seen near the house of 'Nieuwenhuizen' and 3 days later it was killed. It was a lioness 'and not very large'. Paterson gave the dimensions (1789:33, 1980:76).

[10] 16 November 1777; Swarteberg (probably Resbosrant) 33°22'S, 23°17'E
Oreotragus oreotragus, 'klipspringer' (1980:76)
Papio ursinus, 'baboon' (l.c.)
Panthera pardus, 'tiger' attacking the baboons (l.c.).

11.6.2 *The second journey*

This expedition in northerly direction lasted from 22 May to 20 November 1778.[14] Paterson was accompanied by Sebastiaan Valentijn van Reenen (1760-1821). The route was traced by Forbes & Rourke (1980:82) on a modern map. Paterson intended to travel east and started his journey in that direction visiting Caledon and Swellendam. On 30 June 1778 he met 'a gentleman who came from the westward' with the information that many rivers were swollen and had become impassable (1980:85). He then went northward to Verkeerdevlei, to the vicinity of Calvinia and continued to the Orange River at Goodhouse and Ramansdrift. He returned to Cape Town by a more direct route.

[11] 27 May 1778; Tygerhoek (present Riviersonderend) 34°9'S, 19°55'E
Damaliscus d.dorcas, several herds of 'Bonta Bock' (1789:39, 1980:83).

[12] 13 July 1778; near Warmwaterberg 33°45'S, 20°50'E
Panthera leo, the driver of the wagon had seen 2 lions during Paterson's absence (1980:88)

[13] 14 July 1778; near Touwsrivier 33°30'S, 20°5'E
Crocuta crocuta, 'hyaena', heard howling (1789:43, 1980:88)
Panthera pardus, 'print and dung of Tyger' (l.c.)

[14] 18 July 1778; The Straat 33°23'S, 19°58'E
'We amused ourselves shooting wild ducks and waterhens' (1980:88)

[15] 25 July 1778; between Doring River and Taukwa River 32°45'S, 20°E
Panthera leo, lion prints (1980:91)
Panthera pardus, prints, and van Reenen 'saw a large tiger' (l.c.)

[16] 30 July 1778; Rhinoceros Bosch c.32°20'S, 20°10'E
Diceros bicornis, this locality was 'a noted place formerly for shooting those animals, but it is now seldom that any are seen in this part of the country' (1789:49, 1980:91)

[17] 3 August 1778; Rhinoceros River near Louwsdrift 31°22'S, 19°56'E
Equus quagga, 'several herd of Quackas' (1980:93)

[18] 11 August 1778; Rietfontein on Klein-Toring River 31°18'S, 19°30'E
Panthera leo, lions in the vicinity, not seen (1980:96)

[19] 18 August 1778; Bokkeveld near Swellengrebelfontein 31°10'S, 18°55'E
Oryx gazella, 'gemsbock' (1789:53), 'Chems Bock' (1980:96) were hunted and two were killed. It had 'remarkably long sharp horns, and when attacked by dogs, will sit on its hind quarters and defend itself' (1789:53-54).

[20] 19 August 1778; Doring River at Stinkfontein 31°4'S, 18°55'E
Panthera leo, prints of lions (1980:99)
Taurotragus oryx, herds of 'elks' (l.c.)

[21] 6 and 9 September 1778; Orange River near Goodhouse 28°54'S, 18°15'E
Hippopotamus amphibius, 'hippopotamus' (1789:60, 1980:105), hunted without success. Also seen on 9 and 15 September (1789:63, 1980:107) and on 23 September (1980:109).
Birds, variety of the most beautiful birds (1789:62, 1980:107).
'Numbers of apes' (l.c.).
Loxodonta africana, 'elephants' (l.c.)

[22] 15-22 September 1778; South bank of Orange River 28°53'S, 18°20'E
Paterson presented a general list of species inhabiting that part of the country: 'great numbers of poisonous reptials [= reptiles] ... elephants, rhinoceroses, cameleopardas, zebras, elks, koedoe, lions, tygers, hyenas and jackals' (1789:64, 1980:107). It is not quite clear if all this refers in fact to the south bank as the giraffe maybe was not seen there, see [23].

[23] 15-19 September 1778; North bank of the Orange River 28°40'S, 18°20'E
Giraffa camelopardalis. Van Reenen shot one during a trip north of the Orange River, but it was mauled by a lion and only part of the skin of the neck with the horns, and part of the hind quarters could be preserved. Paterson was unable to cross the river again to retrieve the bones (1789:64, 1980:107).
Hippopotamus amphibius, 'hippopotamus' (1789:64).

[24] 7 November 1778; Lions Dance 31°15'S, 18°55'E
The locality is uncertain.
Taurotragus oryx, 2 'elks' were shot (1980:115).

[25] 13 November 1778; Bergvallei, home of Josias Engelbrecht 32°29'S, 18°44'E
Crocuta crocuta, heard at night (1980:117)

[26] 16 November 1778; near Drogerijst kloof 32°40'S, 18°47'E
Naja nivea, 'yellow snake or Cobbra Capel'. 4 shot, each between 4 and 6 feet long (1980:117).

[27] 18 November 1778; Piketberg 32°50'S, 18°42'E
Equus zebra, some 'Zebras' seen 'but it was now forbid to shoot them' (1980:117).

11.6.3 *The third journey*

This expedition to the east lasted from 23 December 1778 to 23 March 1779. Paterson was accompanied by Jan Frederik van Reenen (born 1760) who is mentioned in the manuscript. The route is shown by Forbes & Rourke (1980:120). Paterson travelled through Somerset West and Caledon to Swellendam, continuing through the Attaquas Kloof roughly parallel to the coastline to Port Elisabeth. He proceeded to a point on the Keiskamma River, about 27°30'E. His return route was similar, and it is only briefly summarized in the existing accounts.

[28] 23 January 1779; Wagon Drift on Gamtoos River 33°52'S, 24°52'E
Syncerus caffer, 'buffaloes' (1789:80, 1980:124).
Hippopotamus amphibius, 'The Hippopotamus amphibius' rarely seen (l.c.)

[29] 26 January 1779; Witteklip 33°55'S, 25°15'E
Extensive plains with numerous herds including:
Taurotragus oryx, 'eland' (1789:81), 'elk' (1980:124).
Equus quagga, 'quacha' (l.c.)
Equus zebra, 'zebra' (1790:81)
Alcelaphus buselaphus, 'a species of Antelope called by the Dutch Hartebeest, which is Capra Dorcas of Linnaeus' (1789:81, 1980:124). One was shot and Paterson recorded its measurements.

[30] 28, 29 January 1779; Coega River (Called 'Kow Cha') 33°41'S, 25°30'E

14. The Cape government's permission to Paterson for travel into the interior, signed by O.M.Bergh, is in the Cape Archives, C 704 (Instructiën 1775-1782), f.20.

Panthera leo, 'lions' (1789:83, 1980:124).
Diceros bicornis, 'rhinoceroses' (l.c.). Forbes & Rourke (1980:125, note 51) doubt that Paterson actually saw the species.
Syncerus caffer, 'buffaloes' (l.c.)
Lycaon pictus, 'wild dog' (l.c.)

[31] 29 January 1779; Sundays River 33°35'S, 25°45'E
Hippopotamus amphibius, 'hippopotami' (1789:84, 1980:124).

[32] 31 January 1779; Sandvlakte near Paterson 33°25'S, 25°38'E
In this place Paterson (1789:85, 1980:127) mentioned the presence of lion, panthers, elephant, rinoceris (= rhinoceros), buffaloes and springbock (*Antidorcas marsupialis*).


[33] 4 February 1779; Trumpeters Drift on Fish River 33°12'S, 26°45'E
Syncerus caffer, 'buffalo', a herd of about 100 'five of which we killed' (1789:88, 1980:130, 131).
Hippopotamus amphibius, 'hippopotamus' in the deepest parts of the river (1789:88, 1980:131).
Loxodonta africana, elephant (l.c.)
Diceros bicornis, rhinoceros (l.c.)

[34] 7 February 1779; Plains in Cafferland 33°10'S, 26°50'E
Syncerus caffer, 'buffaloes' numerous herds (1789:89, 1980:132).
Loxodonta africana, 'elephants' a herd of about 80 in number (l.c.).

[35] 11 February 1779; Great Fish River 33°12'S, 26°45'E
Diceros bicornis, two rhinoceroses were shot by the hottentots in Paterson's absence. They 'brought part of the flesh with them, which proved good eating, being very tender and young' (1789:95, 1980:136).
Loxodonta africana, 'elephants' (1789:95).
Syncerus caffer, 'buffaloes' (l.c.)

[36] 13 February 1779; Now Tio (N.W. of Grahamstown) 33°17'S, 26°33'E
Syncerus caffer, 'buffalo' a herd was seen (1789:95, 1980:136).

11.6.4 *The fourth journey*

This was Paterson's second expedition in northern direction, and again he was accompanied by Sebastiaan Valentijn van Reenen. He travelled in about the same period and in the same part of the country as R.J.Gordon. Apparently, they only stayed together for short periods. Forbes & Rourke (1980:138) mapped Paterson's route of this journey which lasted from 18 June to 22 December 1779. He went via Piketberg, Leipoldtville to Swellengrebelfontein near Niewoudtville and to Ellenboogfontein near Kamieskroon. From there he made a trip to the mouth of the Orange River returning to Ellenboogfontein. He then travelled north again to Ramansdrift on the Orange River, and made a short excursion north of that river. The return journey to the Cape followed roughly the same route.

[37] 21 June 1779; Groene Kloof (present Mamre) 33°30'S, 18°28'E
Raphicerus campestris, 'sten bock' (1789:100, 1980:137).
Alcelaphus buselaphus, 'harte beast' (l.c.)
Gallinago nigripennis, 'watersnipe' (l.c.)
Francolinus capensis, 'pheasant' (l.c.)
Francolinus sp., 'partridges' (l.c.)

[38] 16 July 1779; Doring River 31°4'S, 18°55'E
Panthera leo, roaring of lion (1980:142).

[39] 3-4 August 1779; Place N.W. of Kookfontein c.30°S, 17°35'E
Loxodonta africana, dung of elephants (1789:106, 1980:142).
Panthera leo, prints of lions (l.c.).

[40] 6 August 1779; Renosterkopfontein or Grootmis on Buffels River, 5 km from coast 29°39'S, 17°6'E
Phoenicopterus sp., 'numbers of Flemingos or the *Phenocopterus ruber* of two sorts, one much smaller than the other' (1789:107, 1980:143).
Loxodonta africana, elephants were reported but not seen (1789:107, 1980:147)

[41] 9 August 1779; 'fountain' at MacDougall Bay 29°15'S, 16°52'E
Phoenicopterus sp., 'shot some flemingoes which we ate' (1980:147)
Oryx gazella, 'chemes bock' (l.c.)
Wild ducks (1789:109, 1980:147)
Arctocephalus pusillus, 'seals' seen on 11 August 1779 (l.c.)

[42] 17 August 1779; Near the mouth of the Orange River 28°40'S, 16°30'E
Struthio camelus, nest of ostrich with 34 eggs (1789:112, 1980:153)
Equus zebra, 'zebras' (1789:112, 1980:152)
Equus quagga, 'quachas' (l.c.)
Taurotragus oryx, 'elk' (l.c.). Forster (1790a:113) called them *Antelope oreas*.
At the river, they saw wild geese, ducks, flamingoes, pelicans (1789:114, 1980:152).
25 August 1779.
Hippopotamus amphibius (1789:117, 1980:156), one shot on 26 August.
Loxodonta africana, one elephant shot by Pienaar, Gordon's companion (1789:118, 1980:156).
Panthera leo (l.c.)
Not identified, probably *Alcelaphus buselaphus*, a 'hart' had been shot (1980:157).
28 August 1779.
Equus zebra, a herd of zebras (1980:157)

[43] 1 September 1779; MacDougall Bay (= 41)
Bitis cornuta, horned snake, 12 to 18 inches (30-45 cm) long, supposedly venomous (1789:120, 1790:120, shown in the 2nd edition on plate facing that page; 1980:157).

[44] 26 September 1779; Small Brack Fontein 29°17'S, 17°59'E
Panthera leo, print of lions (1789:122, 1980:160)

[45] 7 October 1779; Goodhouse, south bank of Orange River 28°54'S, 18°15'E
Not identified, 'monkey' (1789:123, 1980:162).
Loxodonta africana, tracks of elephant (1789:124, 1980:162).
Hippopotamus amphibius, tracks of hippo (l.c.)

[46] 14-22 October 1779; Region north of Orange River between Goodhouse and Warmbad
Equus zebra, 'zebra' (1789:126, 1980:164).
Diceros bicornis, 'rhinoceros' (l.c.) and 2 were wounded (1789:128, 1980:166)
Tragelaphus strepsiceros, 'koedoe' (l.c.). Forster (1790a:127) called them *Antelope strepsiceros*.
Giraffa camelopardalis, 'Camelopardalises' (1789:126). On 18 October, 6 giraffes were seen. One of those was shot by van Reenen. It was preserved, Paterson recorded its measurements (1789:126-127, 1980:164). The history of this specimen is given in 11.7.

[47] 26 October 1779; Ellenboogfontein 30°13'S, 17°52'E
Panthera leo, a lion had killed a horse (1789:129, 1980:166).

[48] 20 November 1779; Loerisfontein 30°59'S, 19°29'E
Antidorcas marsupialis, 'spring bock' which split up 'into large flocks at least twenty or thirty thousand in each flock' (1789:129, 1980:169).
Loxia sp., 'in mimosas a sort of Loxia' (1789:133).

11.7 COLLECTIONS

Paterson apparently went to the Cape of Good Hope with plant collection as the first objective. Forbes & Rourke (1980, chapter 2) discussed this activity and the fate of the botanical specimens, now all lost or unknown. A few of the living plants and

seeds went to Lady Strathmore, others to William Forsyth at the Chelsea Physic Garden, and to James Lee at the Vineyard Nursery in Hammersmith (Willson 1961:25, Gunn & Codd 1981:275). Paterson owned a herbarium of dried plants with an unknown content. Some specimens were once present in a 'cabinet commissioned for this purpose by the countess of Strathmore' which stands in the Bowes Museum at Barnard Castle, Co.Durham, without its plants (Forbes & Rourke 1980:37).

Even less can be said about Paterson's zoological collecting. Apparently he had little interest in this field. The only animal known with certainty to have been collected by him in southern Africa is a giraffe (discussed below). However, on 14 January 1787 he wrote to Forsyth from Montrose about the availability of 'the single Koedo horn as you have a compleat head besides it. I ask it for a gentleman here who has been a great friend to me ever since I came to the country' (Kew ms, f.30). This must refer to specimens of *Tragelaphus strepsiceros* possibly brought to England by Paterson.

Sebastiaan V.van Reenen, Paterson's companion on the 4th journey, shot a male giraffe on 18 October 1779. Its skin and skeleton were preserved and Paterson (1789:126) could state that 'the skin is stuffed, and in the possession of John Hunter, Esq., Leicester Square.' Dobson (1959) described the history of this specimen. It was presented to John Hunter (1728-1793) by Lady Strathmore. When Hunter received the skin, it still contained the skull, cervical vertebrae, trachea and some other bones. The skin was stuffed and the bones preserved separately. When Hunter died in 1791, his extensive collection was bought by the English government and put in the custody of the Company of Surgeons in 1799. The stuffed giraffe was a conspicuous item of this small museum. Its skeleton was listed in the Osteological catalogue compiled by Richard Owen in 1853 (p.599):

3618. Skull of a male giraffe (*Camelopardalis Giraffa*). This specimen, with some cervical vertebrae, and cylindrical bones of the extremities, together with the skin, which is stuffed and has been transferred to the British Museum, were brought to England by Lieut. William Paterson, who had been sent by the Hon. Lady Strathmore on a botanical expedition into Caffraria and other parts of Africa, till then unexplored, and were by her Ladyship presented to Mr.Hunter. Hunterian.

The bones are enumerated separately under nos. 3621-3639. A similar entry was put in a later catalogue by Flower (1884:281) with all individual items combined under no. 1438. The bones are still preserved, unmounted, in the museum of the Royal College of Surgeons of England in London (Dobson 1971,II:208 and personal observation). The stuffed skin was transferred to the British Museum in May 1834 together with 30 other mammals. It was placed on the staircase at Montagu House. It was later destroyed, but the date is unknown. Maybe our last glimpse is on a drawing made by G.Scharf in 1845 which shows 3 stuffed giraffes and a single-horned rhinoceros in the British Museum (recently reproduced by Stearn 1981, pl.8).

CHAPTER 12

François Levaillant

12.1 BACKGROUND

The Frenchman François Levaillant (1753-1828) was mainly interested in the study of birds. He travelled to South Africa where he made two expeditions into the interior in 1780-1784. The first went in an easterly direction to the Great Fish River, the second northwards to the Orange River. On his return, he published an account of the first expedition in 1790, followed by one of the second expedition in 1795. Both these books were immensely popular with the general public and they have often been translated and reprinted. Levaillant's ornithological interests resulted in a number of books with descriptions of various groups of birds, all superbly published and illustrated with a large number of (coloured) plates. The beauty of these bird books ensures their continued value. The birds described in these books were not just South African or even African, but species from all over the world were included. Levaillant did not provide binominal names, but this 'oversight' was quickly amended by other authors at the beginning of the 19th century. This is one of the reasons why Levaillant's books are still important today. Levaillant's combination of travel in the South African interior and his interest in birds made that he was one of the first people to describe the species of that region. Therefore he is an important pioneer of African ornithology.

Most scientists today will add to these achievements, almost in one breath, that the books are useless due to the great number of inaccuracies and inconsistencies found in them. I shall not try to contradict this. It is certainly true that the books by Levaillant must be treated with caution and that it takes a detailed study to understand which parts are still of some value.

This chapter has become rather complicated. It is impossible to present the data in a strictly chronological order. In whatever way the sections are arranged, always some information to be discussed later must be included. Some persons are introduced at first, while a fuller discussion of their interactions with Levaillant is found later. A few remarks therefore need to be given here.

In 12.2 some biographical notes about Levaillant are presented. This is followed by a discussion of Levaillant's publications. Their bibliography is complex, either because there were many editions and reprints, or because they were published in parts over a considerable number of years. The two travel accounts are cited as the *Voyage* of 1790, and the *Second Voyage* of 1795 (see 12.3). The most important contribution to South African ornithology is contained in the *Histoire Naturelle des Oiseaux d'Afrique* which appeared in 6 volumes (51 parts) between 1796 and 1812 or 1813 (12.4). In referring to this work, I have usually not only given the date of publication, but also its title (to distinguish it easily from other books of that period) abbreviated either as *Oiseaux d'Afrique* or as *Ois.Afr.*. For the species described, it is usual not to refer to page numbers, but to the plate numbers, and that tradition is followed here. It will be seen that the *Oiseaux d'Afrique* did not only describe South African species, but Levaillant also included birds from the rest of Africa and even quite a number from other parts of the world. Sometimes he thought to have seen a certain bird, but the specimen depicted is not known from South Africa. This has been the main reason for contention concerning Levaillant's honesty, and it remains the biggest stumbling block in any appraisal of his work.

Besides the *Oiseaux d'Afrique*, Levaillant published another four titles about birds discussed in 12.5. These books are cited as the *Oiseaux Nouveaux*, the *Perroquets*, the *Oiseaux de Paradis* and the *Promerops*. Except the first, they contain a few species of birds from South Africa.

Next follows a discussion of several collections of watercolours and some engravings connected with the life of Levaillant. Only one of these collections was known previously and the discovery of the others necessitated a fuller analysis of Levaillant's work than otherwise would have been necessary. The various collections are here identified by abbreviations based on their depositories:

CT: Watercolours in the Library of Parliament, Cape Town (12.8),
UBL: Watercolours in the library of Leiden University (12.9),
RMNH: Watercolours in the Rijksmuseum van Natuurlijke Historie, Leiden (12.10),
KB: Watercolours in the Koninklijke Bibliotheek, The Hague (12.11),
RPK: Watercolours in the Rijksprentenkabinet, Amsterdam (12.12),
Yale: a volume with engravings in Yale University, New Haven (12.13).

The zoological depictions of the first collection, and all drawings and engravings of the other five collections are described. There are many drawings of birds and some of mammals, many previously unknown or known only as engraving, depicting species from South Africa and from other parts of the world. The total of these drawings and engravings is 377. In view of this large number, it is expected that the last word about them has not yet been said here.

The animals seen by Levaillant during his expeditions in South Africa and recorded in his *Voyage* and *Second Voyage* are analysed in 12.14 as in previous chapters. During his stay in Africa, Levaillant collected a large number of specimens, mainly birds, but also some mammals and insects. These specimens were widely dispersed even during his lifetime. It is likely that some still exist, but only very few are still recognised in various museums (especially in the Rijksmuseum van Natuurlijke Historie in Leiden). The persons who received, or who were said to have received, South African specimens from Levaillant are discussed in the last part of this chapter. It shows which South African species can be identified in their collections from the available records, and it must be assumed that the majority of these were collected by Levaillant. The most important recipients of Levaillant material were Jacob Temminck

(and his son C.J.Temminck), Joan Raye van Breukelerwaert in Holland, and Louis Dufresne who was attached to the Muséum National d'Histoire Naturelle in Paris. Other zoological specimens from Levaillant were reported in the collections of L.F.Holthuysen, Lafresnaye (but not substantiated), Abraham Gevers and a certain Boers. Most of these people have played an important role in the life and work of Levaillant in various ways, and their names occur many times. Their biographies are sketched in the respective paragraphs (12.15 to 12.23).

It is necessary to comment on the spelling of the name Levaillant. At first his family was called Vaillant. François added the initial 'Le'. Among the papers left at his death, there was a legal document (undated) which bestowed the name 'Le Vaillant' on his family rather than Vaillant 'qui est véritablement la sienne.' De Saint-Obin (1950) mentioned, without reference, that this change was effected in 1775. The name has been spelled in two ways, Le Vaillant and Levaillant. There does not seem to be a consensus. I have two reasons to prefer the latter spelling, but it is a choice of convenience rather than logic. The first reason is that the spelling in two words leads to some bibliographical difficulties because the name is then arranged under Vaillant rather than Le Vaillant. The second reason is that in a few examples known of his signature, he clearly combined the two parts and the V is not obviously capitalised.

12.2 BIOGRAPHY

Levaillant has never been the subject of a good biography. Only two larger essays tried to show various aspects of his life, i.e. those by Bokhorst (1973a) and by Stresemann (1951:89-103). They were written from completely different viewpoints and therefore they are largely complementary. There were many shorter notices, some of which were used here.[1]

12.2.1 *First years*

For the first 25 years of Levaillant's life we depend on the introduction in his own *Voyage* of 1790. He was born on 6 August 1753 in Paramaribo, the capital of the South American country Suriname. His parents were Nicolas François Vaillant (1723- ca.1795) and Catherine Joséphine, née François. They had settled in Suriname some two years earlier after fleeing France because they had married (in 1751) against the will of the girl's father. Besides running a business and being part-time Consul of France, they showed a lively interest in natural history. They took their young son into the country to observe and collect the fauna and flora.Soon young François laid the foundations of his own cabinet. On 4 April 1763 the family left Suriname to return to Europe arriving at Texel (Holland) on 12 July. They then settled in Metz, the birthplace of the father. François had the good fortune to meet the apothecary Jean-Baptiste Bécoeur (1718-1777). This amateur had an impressive collection of birds, mainly European. He also developed an arsenical soap which could be safely applied to bird skins to guard them against insects. This technique was later popularised by Dufresne (1803) and others (Farber 1982:54). In 1783 Bécoeur's collection was sold to Karl Theodor von der Pfalz (1724-1799) in Mannheim (Kistner 1930:120). Levaillant (Ois.Afr.II:74) regarded this transaction as a great loss to the French nation, and described Bécoeur as a naturalist who 'avoit passé cinquante ans de sa vie à rassembler tous les oiseaux du pays, et il possédoit, dans ce genre, la collection la plus nombreux, la plus complette et la mieux conservée que j'aie jamais vue.' Bécoeur did not only show his birds to Levaillant, he also instructed him how to prepare and preserve them. The young man became quite adept at it, as appears from the words of Graf von Hoffmansegg in a letter to his sister written on 2 December 1797 (cf. Stresemann 1951:93):

> Ich habe immer nicht begreifen können, wie er [Levaillant] so viele Vögel in einem Tag aufheben konnte, und fragte ihn darum. Er versicherte, daß er zu einem kleinen nicht mehr als *drei Minuten* brauchte, um ihn volkommen zum Aufheben zuzurichten. Das klang übertrieben. Er ließ aber gleich einen kleinen Vögel holen, und präparierte ihn vor unsern Augen vollkommen fertig, und es waren noch nicht einmal drei Minuten an der Uhr vergangen. So sagte er, er hätte manchmal 30 und mehr in einem Tag erst selbst geschossen und dann noch *zubereitet!* Und nun sehe ich wohl, daß es möglich war.

Levaillant spent 7 years in Metz – presumably continuing his education, although that is nowhere actually stated. Then he lived 2 years in the neighbouring parts of Germany and 7 years in Lorraine and Alsace. He probably stayed in Lunéville, where he met Richard, another collector of local birds (Stresemann 1951:378 note 18). While in Lunéville, on 18 September 1773, François Levaillant married Marguerite Suzanne de Noor. Bokhorst (1973a:3) said it happened 'about 1776'; the above date is taken from a short genealogical list by De Saint-Obin (1950), which has also been used to document his children and other marriages (12.2.5).

The first visit to Paris was made in 1777. Levaillant (1790,I:xxii) enjoyed himself by visiting the rich national cabinet of natural history: 'j'etais ébloui, enchanté de la beauté, de la variété des formes, de la richesse des couleurs, de la quantité prodigieuse des individus de toute espèce.' Apparently Levaillant stayed in Paris in the following years, but what he did or where he lived is not known. Possibly he traded animals and birds (collected during shooting expeditions) or helped others with bird preservation. He assembled a sizeable collection of natural history specimens, some of which from Suriname might have been given to him by his father. D'Argenville (1780,I:802) wrote about a 'M.Vaillant, fils' in Anières near Paris who had

> une superbe collection d'oiseaux, tant étrangers que d'Europe, qu'il prépare & monte lui-même de manière à préserver de la voracité des insectes. On y voit de plus une suit de quadrupèdes, reptiles, lézards, poissons, insectes & coquilles de Surinam, parmi lesquels il se trouve des pièces de la plus grande rareté, telle que des poissons vivipares d'eau douce, le crapaud pipal dans trois états différens, la métamorphose des poissons en grenouilles, &c.&c.

Of course, this notice could concern Levaillant's father, but the statement concerning the preparing and mounting seems to

1. Smaller additional notices about the life of Levaillant include Anonymous 1860, 1974, Bégin 1832:373-377, Bokhorst 1965, Crichton 1843, Eloff & Labuschagne 1961:11-12, Eybers 1925:32-65, Forbes 1965:117-127, Gillette 1845:227, Gunn & Codd 1981:224-226, Hoogmoed 1973:14, Knox 1850:475, 1852:209, Meiring 1973, Quinton 1975, Ripley 1973, Robinson 1964, Rosenthal 1973, Sclater 1905, 1929:187, 1931, Swainson 1840:360-363, Willcox 1986:42 and Witkamp 1869:183-186. The absence of manuscript material relating to Levaillant in the libraries and museums in Paris or in France is remarkable. All enquiries until now, by myself and others, have not discovered anything in the more likely places, except the documents relating to Levaillant's estate after his death (see 12.2.7).

point to the son. Some of these South American specimens are still preserved in the Paris museum (12.15).

12.2.2 *The South African journey*

Levaillant left Paris on 17 July 1780 while his wife and two children stayed behind. His intentions at the time are not quite clear. Did he just want to see some collections in other countries, or did he set out hoping to find his way to some distant country, or maybe he had already decided on the Cape of Good Hope? All we know is that he went to Holland and visited many owners of natural history collections. Some impressions of these visits are recorded in his *Oiseaux d'Afrique* (I:53-56). He went to Leiden, Haarlem, The Hague, Rotterdam, Amsterdam and a few other places. All this happened in 1780, although some visits possibly were made during the days he spent in Holland after his return in 1784.

In Amsterdam he met Jacob Temminck (1748-1822), the influential treasurer of the Dutch V.O.C., who had collected exotic birds and other animals since around 1770. Temminck seems to have taken a special interest in Levaillant and may have asked him to travel to the Cape of Good Hope. Maybe Temminck only helped him to gain passage on a Dutch ship, maybe he suggested the whole trip to enlarge his own cabinet. He may even have subscribed to the project financially. Witkamp (1869:184), who possibly had access to sources now unknown (like the Temminck family records), speaks about an agreement between Temminck and Levaillant 'respecting the spoils which Levaillant would collect and [Temminck] supported him in the most generous way.'

Levaillant left Holland on board of the *Held Woltemade* with captain S*V* (Levaillant 1790,I:2). He recorded the date of departure in his first *Voyage* as 19 December 1781 instead of 1780. He spent 3 months and 10 days at sea. Other records confirm the ship's arrival at the Cape on 14 April 1781 (Forbes 1973:33). This is just the first of many inaccurate dates or periods found in Levaillant's Travels (Forbes 1973:94-95). The large number of inconsistencies, especially in the chronology, has led some people to suggest that Levaillant did not leave Europe. But, as J.R.Forster (1796:i) remarked, 'überdies beweist sein von vielen Leuten gesehenes Naturalien-Kabinet unwidersprechlich, daß er sein Reisen wirklich gemacht hat.' Today there is no longer room for doubt.

During his stay in Southern Africa, Levaillant made two extensive journeys into the interior, one eastwards to the Great Fish River, the other northwards to the Orange River. More details will be given in 12.14. Laden with natural history specimens and with many memories, Levaillant departed from the Cape on 14 July 1784 on board the *Ganges*. The ship arrived in November 1784 in Holland (Vlissingen). Some two months later Levaillant joined his family in Paris. In the meantime he must have stayed in Holland to discuss the donation or sale of his collections with Temminck and others.

12.2.3 *Studying the collections*

It is difficult to unravel exactly the extent of Levaillant's collection of birds and other animals from South Africa. There are indications that the number of specimens must have been quite considerable. Levaillant faced a difficult and time-consuming task. He had to study the specimens and define each kind, taking into account differences of sex or age. Secondly, he had to clarify how many of those species had been described or illustrated earlier. The subject had to be approached through the study of literature and of specimens in other collections. As noted by Stresemann (1951:95), Levaillant was well appointed for this job.

Levaillant was less inclined to spend time reading books. He was fortunate that there was precious little to be read. In 1824, his library contained the bird section of Buffon's *Histoire Naturelle*, Brisson's *Ornithologie*, both filled with his notes. He also had Buffon's *Planches Enluminées*, which he often quoted in his books.

Besides the books, it was necessary to look around in other cabinets of natural history. There was a large number of private collections in Paris (Laissus 1964), and Levaillant must have been familiar with many of them. The National Museum in Paris experienced exponential growth in the 1790's with new specimens from all parts of the world. The 'Aide-Naturaliste' of that museum, Louis Dufresne, always welcomed Levaillant. Outside his own country, Levaillant had seen the rich cabinets in Holland in 1780 and 1784. He even travelled to Spain and Portugal between 1785 and 1795, which appears from his statement (*Ois.Paradis*, I:13) about his purchase of two specimens of a 'Tocan à collier jaune' in Lisbon. His later bird books also show that he kept well abreast with the new developments in ornithology.

Levaillant also engaged in the sale of birds and other animals after his return from South Africa. Birds which he collected there are known to have existed in the collections of Temminck, Raye, Holthuyzen and Boers (all in Holland) and in the Paris museum (see 12.15). There is no evidence indicating when the various transactions would have taken place, or if they were donations rather than sales. It is quite likely, however, that Levaillant sold at least some specimens to bring some income to his family.

12.2.4 *Publications*

Levaillant must have kept some kind of written record of his African expeditions. Maybe this was a daily diary, although the confused chronology in his books seems to contradict this. Certainly, he had a notebook to record his various observations. At the time of his death, the inventory of his estate (see 12.2.7) included 'un cahier écrit de la main de M.Levaillant ayant pour titre Remarques & evénemens du Journal.' This document is not known to exist.

The account of the first expedition into the South African interior towards the Great Fish River appeared in 1790, that of the second in 1795 (12.3). The first *Voyage* was an immediate success. New editions soon appeared, as well as translations into English, German and Dutch. The exciting adventures and the romantic style were the main reasons for its popularity with the general public. Besides, it must be realised that in 1790 little else was available about the Cape of Good Hope. Only Sparrman's book had appeared in French prior to 1790, while the French translation of Paterson's *Narrative* also came in 1790, that of Thunberg's *Resa* in 1796. The success of the first *Voyage* influenced the length of the *Second Voyage* of 1795, which also included a larger number of plates. The two books appeared rather far apart, possibly due to the precarious political and economic situation in France after the revolution of 1789.

Levaillant's possible imprisonment (see below) may have been another cause.

On his return to France, Levaillant started to sort his collections and to study the relevant literature and specimens in other cabinets. His next task was to prepare his findings for publication. He probably conceived the plan for that project soon after his return. Certainly, when he published the *Voyage* in 1790, he mentioned his intention about writing a zoological companion. In the case of a 'perroquet' seen on the Great Fish River, for instance, he promised to discuss it 'amplement dans mes descriptions d'oiseaux' (Levaillant 1790,I:236). Again, his readers would find 'dans mon Ornithologie, les figures & les descriptions détaillées des trois espèces d'Indicateurs qui me sont connues' (Levaillant 1790,I:258); but they had to wait until 1807!

In 1796 he started with the publication of the *Histoire Naturelle des Oiseaux d'Afrique*, which continued to appear in parts consisting of 6 plates and accompanying text until well into the 19th century. At first nothing could go wrong. The taste of the French for illustrated nature books was considerable and their money sufficient to support the fashion. A large number of beautifully illustrated books about birds and mammals appeared in Paris in the first ten years of the 19th century. Levaillant added three other titles, all started in 1801: the *Oiseaux Nouveaux et Rares de l'Amerique*, the *Histoire Naturelle des Perroquets* and the *Oiseaux de Paradis*, discussed in 12.5.

Around 1810 the fashion did not disappear completely, but money became scarce. Levaillant was unable to complete all his projects. After 1808 the publication of the *Oiseaux d'Afrique* and the *Oiseaux de Paradis* became irregular. The last installment of the *Oiseaux d'Afrique* published in 1812 or 1813 presented a list of Levaillant's future plans (Levaillant, *Ois.Afr.* VI:128-130):

1. La suite de l'Histoire naturelle des Oiseaux d'Afrique, qui contiendra l'histoire des martin-pêcheurs, celle des touracos, tout l'ordre des passereux, parmi lesquels je n'admets absolument que les granivores, tels que les moineaux, les gros-becs, les républicains ..., les veuves, les bengalis, les ortolans; tout l'ordre des gallinacés, composé de l'histoire de l'autruche, des outardes, des pintades, des perdrix, des cailles et des gélinottes; celui des échassiers, ou oiseaux riverains, et enfin celui des palmipèdes. Ce complément des oiseaux observés dans mes voyages en Afrique, formera encore 4 volumes de 50 à 60 planches chacun. ...
2. La suite de l'histoire des perroquets ... cacatoes et des periches. Cette suite est déjà composée dans ce moment de 79 espèces, qui formeront une volume.
3. L'histoire naturelle d'une partie des oiseaux des Indes et de l'Amerique ... composé de 250 à 300 planches, et formera 4 à 5 volumes.
4. L'histoire naturelle des quadrupèdes de la pointe sud de l'Afrique. Cet ouvrage, qui ne contiendra que les animaux observés pendant le cours de mes voyages, sera d'autant plus intéressant pour les naturalistes, que je traiterai des moeurs de chaque espèce en particulier.

He also intended to write 'un essai sur une méthode nouvelle de classification ornithologique, basée sur les habitudes, sur les moeurs, enfin sur les fonctions des oiseaux et sur les caractères propres à ces mêmes fonctions.' Finally, he was still working on 'un ouvrage utile aux naturalistes pratiques, et qui contiendra des notions précises sur la chasse comme observateurs, et sur la manière de collecter, de préparer et de conserver les différens objets d'histoire naturelles.'

None of these works appeared. At least some manuscripts and drawings were ready. The drawings intended for the volume on African mammals may be those present in Cape Town and the other collections of watercolours (12.6), but the text is not known to have existed. His estate in 1824 included the seventh volume of the *Oiseaux d'Afrique* with 52 plates and a 'Guide du Naturaliste' (Bokhorst 1973a:19). Of these, there is now no trace.

12.2.5 *Family affairs*

Some data about Levaillant's family and domicile may be enlightening (Bokhorst 1973a, De Saint-Obin 1950). Details about his parents, three marriages and 10 children are given in table 3. His first wife was not very excited about her husband's long absence and their marriage was dissolved between 1785 and 1789. In June 1789 Levailant married Pierrette Foyot, the daughter of judge Didier François Foyot of Sézanne. Her dowry of 50,000 francs helped the pair through the difficult years of writing and studying. They had four children. At first the couple lived in Paris (Rue de Chaillot) moving in 1796 to a country-house in La Noue near Sézanne, some 60 miles east of Paris, a property donated by judge Foyot (Bokhorst 1973a:8, 13 and figures). Because later visitors usually met Levaillant in Paris, he probably retained a small pied-à-terre in the capital.

Levaillant's second wife died around May 1798. He married again in 1802 to Rose Dubouchet, who was 30 years his junior. Together they had another four children. The newly wed couple was visited in 1802 by Karl Rudolphi, who (incorrectly?) only mentioned the presence of three children of the second marriage:

> Seine Frau scheint noch jung, und sprach mit; sie kannte auch den Manucode, den Sixfilet u.s.w., doch war sie ganz unbefangen dabey, und in seiner Nähe muß wohl alles zur Naturhistorie Lust bekommen; so war unter seinen drey hübschen Kindern (zwey Knaben und ein Mädchen) der älteste Junge auch schon voll Liebe dazu, und mag vielleicht einst seinem Vater folgen (Rudolphi 1804:237).

Later, Levaillant (Ois.Afr.VI, 1812:128) stated his intention to give all his natural history manuscripts to this oldest son of his second marriage called Jean. This son became a general in the army, and may not have had much time to pursue these interests. It later proved to be the younger Jean Jacques Rousseau Levaillant, who followed his father by publishing zoological notes on North Africa fauna (Bokhorst 1973a:17).

His third wife died early in 1812. Levaillant remained at La Noue surrounded by his youngest children. He also continued to be listed as a trading naturalist in Paris until 1823, with his address as Petit Vaurigard no.1.

Table 3: Levaillant's family

Father: Nicolas François Vaillant (Metz 1723 – after 1775; the 'Inventaire' gives a date of death as 27 messidor an IV, or 15 July 1796).
Mother: Catherine Josephine François (no dates known).
The marriage took place in 1751, François was the first (only?) son born at Paramaribo on 6 August 1753.
François Levaillant (Paramaribo 6 Aug 1753 – 22 Nov 1824 La Noue married 3 times:)
1 Marguerite Suzanne De Noor (175. – after 1816)
Married Lunéville 18 Sept 1773, dissolved 1785-89
1. François (b ? – 1811) – married Augustine Brutinel, no children.
2. Françoise Julie (?) – first married Legout in 1794, later Captain Jacques Claude Lucotte.
2 Pierrette Charlotte Foyot (14 Sept 1766 – 24 May 1798)

Married June 1789, confirmed 9 Feb 1794
3. Jean (b.5 Oct 1790)
4. Julie Caroline (b. 24 Sept 1791)
5. Jean Jacques Rousseau (b. 24 Dec 1793)
6. Charles Boers (b. 17 Sept 1794)
3 Rose Victoire Dubouchet (1783-1812)
Married ? 1802
7. Louis Victor (b. 3 Sept 1803)
8. Rose Aimée Olympe (1805-1823)
9. Julie (b. 12 Nov 1806)
10. Calixte (1809-1821)

12.2.6 *Other affairs*

There is a curious reference in a German geographical magazine of 1800 about Levaillant's supposed plans for a second African journey. The note stated that at that time in France two expeditions were contemplated, one by Nicolas Baudin funded by the French government, the other quite independent:

> Zur Bestreitung der Kosten dieser letztern had sich eine Gesellschaft von meistens Marseiller Kaufleuten, unter dem Namen Société de l'Intérieur de l'Afrique vereinigt. Le Vaillant ist, wie schon gesagt worden, an der Spitze der Expedition. Er geht erst künftiges Frühjahr an den Ort seiner Bestimmung ab; dieser ist die Küste Mozambique. Hier ist seine Absicht eine Colonie zu stiften, und, hat diese einmal etwas Consistenz, von da ins Innere von Afrika einzudringen (Anonymous 1800)

No word about this plan had ever been found in any biographical notice about Levaillant. One could wonder if it was the same man, but all doubts are taken away when the note stated that this Levaillant was known 'durch seine freylich nur zu sehr ans Romanshafte gränzenden zwey Reisebeschreibungen ins Innere von afrika.' In any case, it appears that the expedition never got under way.

Some biographers like Crichton (1843:21) and Witkamp (1869) reported Levaillant's arrest and imprisonment under the reign of terror in 1793 and his release by the fall of Robespierre on 27 July 1794. Both Stresemann (1951:378) and Bokhorst (1973a:10) doubt the accuracy of this assertion. There is no need to linger on this point now. Levaillant never mentioned time in prison, but certainly he was unhappy about his treatment by the French government at the end of the 18th century. Partly this was caused by the difficulties of selling his birds to the national museum. He wrote in 1801 (*Ois.Nouv.*I:21):

> J'ai usé mes plus beaux ans à l'étude de l'Histoire naturelle des oiseaux; j'y ai consacré ma fortune et borné tous mes plaisirs; j'ai parcouru une petite portion de la terre, où j'ai receuilli des faits; je les ai publiés pour la progrès de la science. Que m'en est-il revenu? quel fruit ai-je tiré de tant de peines et de sueurs? L'insouciance du gouvernement et beaucoup d'injustices de la part de certains hommes dont je devais croire avoir merité des suffrages.

Later Levaillant also had to endure some biting criticisms on his work by authors like Lichtenstein and Barrow (see 12.14.1). He never refuted their allegations in print.

It would be nice to report a happy old age. Some hardships, however, appear in the following words of Swainson (1840:362):

> During the latter years of his life, his circumstances were unfortunately rather straightened: yet this did not affect his fine flow of spirits, his passion for birds, or his habitual contentment. To [Dr.Edward Leach], who visited him [in 1818] in the more *aërial* apartments of a house in Paris, he jocosely observed: 'The longer I live, the higher I rise in the world'

Witkamp (1869:186) recorded another worry: 'Ook in zijnen hoogen ouderdom had hij het ongeluk met de justitie in aanraking te komen. Zijn schoonzoon stierf door vergif, en verdenkingen vielen op Levaillant. Hij werd echter van dit misdrijf vrijgesproken.'[2] It cannot be ascertained which son-in-law was meant here.

Our traveller died at La Noue on 22 November 1824 at the age of 72. He was buried in the small cemetary in the village of La Noue. His grave was covered by a tomb erected as late as 1862, with the epitaph (Bokhorst 1973a:20, pl.II):

> François Levaillant. Voyageur en Afrique et auteur d'ouvrages estimés sur l'ornithologie. 1735 [!] – 1824.

Levaillant's books were remembered, the man himself was practically forgotten. When the news of his death spread, there were no official obituaries. Only his friend C.J.Temminck in Leiden showed sorrow. At the time he was publishing his *Nouveau Receuil de Planches Coloriés*. In 1825 he included two new species named after Levaillant (*Plotus Le Vaillantii* and *Indicator Levaillantii*) with an obituary note:

> Après avoir fourni une très-longue carrière, entièrement consacrée à l'étude et aux travaux de l'ornithologie, Le Vaillant meurt à peu près oublié par ses concitoyens, dans une chétive retraite presque dans le dénuement, au milieu d'une très-nombreuse famille dont il était l'unique appui. Ses ouvrages nombreux sur l'ornithologie, particulièrement les six volumes de ses Oiseaux d'Afrique, n'ont pas besoin d'apologie; ils seront appréciés à leur juste valeur par tous les savans, et serviront aux naturalistes de modèle et de guide à suivre dans une science qui veut l'exactitude des faits basés sur des observations souvent renouvelées, dont le mérite doit prévaloir, par son utilité, sur tous ces discours pompeux et poétiques d'une érudition manquant souvent de précision dans les détails essentiels de l'histoire des moeurs et des habitudes des animaux (Temminck, September 1825, p.1)

12.2.7 *Legacy*

After Levaillant's decease in 1824, the value of his estates had to be divided among his children. Some documents about this transaction have become known, which were discussed in the informative essay by Bokhorst (1973b). All movable goods at La Noue including Levaillant's papers and books were listed in a manuscript 'Inventaire après le décès de Mr. F. Levaillant' drawn up by Mr.Guy, notary in Cougiroux, dated 4 February 1825 (preserved in the Archives de la Marne in Chalons-sur-Marne). A similar but less extensive inventory, written rather more neatly, is in the Archives de Paris. The *Inventaire* recorded the family decision that many items, especially books, drawings and natural history manuscripts, were to be sent to Louis Dufresne at the Jardin des Plantes in Paris, 'comme l'endroit le plus convenable pour en tirer parti & les vendre.' Probably most remained unsold. In 1825, it was decided to auction Levaillant's papers and books in the rooms of Hocquard in Paris. The Archives de Paris has several documents relating to this sale, including two posters of different sizes with an announcement of the auction and an enumeration of its contents; and a 'Registre de déclaration de vente' of 7 pages with the names of the buyers and the prices paid. Many of the leads provided by these documents were followed up by Bokhorst (1973b) with the

2. Translated: 'Even in his old age he had the misfortune to encounter the police. His son-in-law died by poisoning, and Levaillant was one of the suspects. However, he was acquitted from this crime.'

unfortunate but inevitable conclusion that none of the items included in the Hocquard sale can still be traced today.

There were many lots of original drawings made by Reynold or by Prêtre (two of Levaillant's artists, see 12.4.2). They had been used for the plates in some of Levaillant's books or they were meant for later works. The total of drawings and engravings offered for sale is hard to estimate, because many were combined in lots without giving the exact number. However, the *Inventaire* drawn up at La Noue mentioned about 620 drawings and 690 engravings, while the sales register gave 995 drawings and 687 engravings. Many of these showed birds, and one cannot but hope that some will be found again.

Only some items particularly interesting in the present context can now be mentioned. The auction included a continuation of the *Oiseaux d'Afrique*:

Le septième volume suite de l'ouvrages des Oiseaux d'Afrique; par feu M. Levaillant, et 52 dessins coloriés originaux par Reynold, destiné à accompagner le dit volume' [and] '115 dessins originaux par Reynold, lesquels étaient destinés à faire la suite du même ouvrage.

Both items were sold to J.B.Garnery, a bookseller in Paris. It was not resold quickly. Wagler (1827) recorded in a footnote that the volume treating the rales and ducks was still for sale in Paris at that time, at a reasonable price ('pretio non ita magno').

There were two sets of manuscript notes, both now unknown:

Sept cahiers renfermant des dessins, gravures, croquis, écrits, notes & renseignements sur l'Afrique, son climat, ses habitans & les animaux [and] Un cahier écrit de la main de M. Levaillant ayant pour titre: Remarques et événements du Journal.

There was also a painting of Levaillant:

Un tableau en son cadre de bois doré répresentant M. Levaillant en Afrique.

It was not sold, but remained in the family. It probably represented a scene like the 'Camp de la Girafe' published as frontispiece in the *Voyage* (Bokhorst 1973b:86). It may be mentioned here that another portrait of Levaillant was shown on the exposition in Paris in 1795, drawn by 'C.Audebert, rue Mazarine, no.154': 'Cadre contenant plusieurs Portraits en Miniature, dont l'un est celui du Cit. *Le Vaillant*, Auteur du Voyage en Afrique, chez les Hottentots' (Anonymous 1871:13).

In the *Inventaire* made at La Noue in 1824, some of Levaillant's remaining correspondence was mentioned. All of this is now lost. There were 38 letters written by Joan Raye van Breukelerwaert (see 12.7) as well as two registers (totalling 83 and 40 pages!) concerning a 'compte constant' between Raye and Levaillant. There were 26 letters from various correspondents about Levaillant's publications. His South African acquaintances also kept in touch, as witnessed by 22 letters written by R.J.Gordon, W.S.Boers and others.

Levaillant's own letters were no longer in his home at the time of his death. Only four are now still available.

1. Letter to notary Lainé, 16 December 1796. In: Bibliothèque Nationale, Paris, Ms. F.N.A. 1305 f.261. Figured by Bokhorst (1973c:102).
2. Letter to Citoyenne Denoux, Rue Neuve St.Etienne 3, Paris. Undated. In: University Library, Amsterdam, Manuscript Room no. 50 C 2.
3. Letter to Egerton, 17 December 1803, written from Le Soigny les Bauvais. In: British Library, London, Egerton mss. f.51.
4. Letter to C.J.Temminck of 1812 mentioned by De Beaufort (1920:39) with short extract. In: Archives RMNH Leiden. This letter (4 pp. and separate note) is initialled rather than signed.

12.3 THE TRAVEL ACCOUNTS

Levaillant divided the account of his activities in southern Africa in two parts. The first expedition was covered in the *Voyage* of 1790, the second expedition in the *Second Voyage* of 1795. The bibliographic details of these works are complicated, because they were published in various formats and editions. Many data were assembled by Ogilvie (1962) and Robinson (1973), which are not repeated here.[3] A note about the authorship is given in 12.3.6.

12.3.1 *The first Voyage (1790)*

The story of Levaillant's first journey to the eastern Cape was published in 1790, in two formats, as follows:

Voyage de M. Le Vaillant dans l'intérieur de l'Afrique par le Cap de Bonne-Espérance, dans les années 1780, 81, 82, 83, 84, & 85. Paris, chez Leroy, Libraire, rue Saint-Jacques; vis-à-vis celle de la Parcheminerie, No.15. 1790, 2 volumes
4to. I: i-xvi, 1-194. II: [1], 195-400
8vo. I: i-xxiv, 1-383. II: [1-2], 1-403.

The title-pages were dated 1790. As noted in the Catalogue of the B.M.N.H., London, the book may have been available in December 1789 when it was reviewed in the *Observations sur la Physique* (Anon. 1789) assuming that the issues of this journal appeared according to the dates on their cover. The pagination in the 4to edition is continuous and the separation into two volumes appears arbitrary (Robinson 1973:126).

The book is illustrated with 12 plates, all of which exist in a variety of states with usually minor differences (see Ogilvie 1962). They were reproduced by Kennedy (1976, nos.L53-64). I here record their titles following the pagination of the 4to edition.

Volume I
(Frontispiece) Campement dans le Pays des Grands Namaquois
(p.22) Vuë des montagnes du Cap de Bonne Espérance, couvertes des nuages du Sud-Est.
(p.85) Camp de Pampoen-Krael
(p.109) Le Hottentot. Pl.I
(p.134) La Hottentote. Pl.II
(p.186) Narina, Jeune Gonaquoise. Pl.IV

Volume II
(p.198) Hottentot, Gonaquoi. Pl.III
(p.327) Le Caffre. Pl.V
(p.337) Femme Caffre. Pl.VI
(p.371) Hottentote. Pl.VII
(p.395) La Girafe mâle. Pl.VIII
(p.395) La Girafe femelle. Pl.VIII.

The watercolours from which these engravings probably were copied are all present in the collection of watercolours preserved in Cape Town (12.8) except the second plate in volume I.

Other French editions followed, from different publishers (until 1800):

Paris, Leroy and Liège, Dumoulin (Ogilvie no.5). A note in the first volume (p.xxiii) as 'Avis au relieur', stated that the plates of vol.I facing pages 85, 109 and 134 will be delivered after 10-12 days. The second

3. Burger (1981) detailed an edition missed by Ogilvie (1962).

Fig. 95 Letter by Levaillant to Egerton, 1803 (British Library, London).

volume 'avec les 12 [!] Figures annoncées' would appear during the first days of next April (1790?). Both volumes together cost 7 liv. 10 fols.
Liège, Journal général de l'Europe. 2 vol. 8vo. 1790 (Ogilvie no.4)
Lausanne, Mourer et Hignou &Co. 2 vol.8vo. 1790. (Ogilvie no.6)
Bruxelles, Benoit le Francq. 2 vol.8vo. 1791. (Ogilvie no.8)
La Haye, chez les libraires associés. 2 vol.8vo. 1791. (Ogilvie, no.9)
Paris & Amsterdam, Crajenschot, van Gulik, van Harrevelt Soetens, Dufour & à Bruxelles, B.le Franq. 2 vol.8vo. 1791 (Ogilvie no.10)

Desray's corrected edition

A new 'corrected' French edition of the first journey was published by Desray in Paris in 'an VI' (1797-98) (Ogilvie 1962:10, no.12, Robinson 1973:126):

Voyage de F. Le Vaillant, dans l'intérieur de l'Afrique, par le Cap de Bonne-Espérance: nouvelle édition, revue, corrigée et considérablement augmenté par l'auteur; ornée de vingt figures en taille-douce, dont huit n'avoient pas encore paru. De l'Imprimerie de Crapelet, A Paris, chez Desray, chez Hautefeuille, no.36. I: i-xxxii, 1-385. II: [1-3], 1-403, [1]. 8vo. 1797-98.

It was noted in the *Journal typographique et bibliographique*, I, '16 prairial an 6'(= 4 June 1798) and '24 messidor an 6'(= 12 July 1798) with price '15 frs. Broch.' and the remark that 'Le Citoyen Desray a conservé les corrections, et les augmentations manuscrites que l'auteur a faites à cette édition, pour les communiquer à ceux qui le désirent.' These textual corrections did not amount to very much. There were, however, 8 additional plates, together with the 12 present in the earlier editions (sometimes bound in different places). They were reproduced by Kennedy (1976,L65-L72). The plates in the Desray edition were:

Volume I
(Frontispiece) Campement dans le Pays de Grands Namaquois
(p.21) Vuë des montagnes du Cap de Bonne Espérance, couvertes des nuages du Sud-Est
(p.41) Le Manchot Aigretté
(p.131) Camp à Duywen-Hoek Rivière
(p.159) Le Touraco

(p.169) Camp de Pampoen-Krael
(p.215) Klaas, jeune Hottentot (same as 'Le Hottentot')
(p.224) Camp à l'entrée du Poort. grande chasse d'Elephants.
(p.236) Camp à Jager-Kraal dans le Pays d'Auténiquois
(p.319) Camp sur les bords de la Grande Rivière des Poissons
(p.370) Narina, jeune Gonaquoise.

Volume II
(p.3) Jeune Hottentot Gonaquoi
(p.44) La Hottentote
(p.245) Le Porte-Lambeau
(p.281) Jeune Caffre
(p.283) Femme Caffre
(p.303) Camp à une horde de Caffres détruits
(p.349) Hottentote à tablier
(p.387) La Girafe mâle
(p.399) La Girafe femelle.

Another edition was published by Déterville in Paris. It was similar to the Desray corrected one in the number of plates and the text. The date is uncertain. Ogilvie (1962:9) doubtfully gave '1795?', while Robinson (1973:129) convincingly proposed 1797-98 because the Déterville edition shows some similarities with the editions of the *Second Voyage* of H.J.Jansen (see below).

12.3.2 *Second Voyage (1795)*

Levaillant's adventures of his second expedition to the western Cape Province became available in 1795. They were published by H.J.Jansen in Paris. There was an 8vo edition in 3 volumes dated 'an 3 de la République' and a 4to edition in 2 volumes dated 'an 4'. According to Robinson (1973:135-136) the 4to appeared a little after the 8vo. The title was:

Second Voyage dans l'intérieur de l'Afrique, par le Cap de Bonne-Espérance, dans les années 1783, 84 et 85.
Paris, chez H.J.Jansen et Compe, Imprimeurs-Libraires, Place du Muséum, 1795
4to. I: [1-3], i-xvi, 1-240. II: [1-3], 1-373, [1-3].
8vo. I: i-xliv, 1-304, [1-2]. II: 1-426, [1-2]. III: [1-2], 1-525, [1-5].

There were 22 plates and (4to only) a map of southern Africa, also available separately at 6 francs. Bound in with some copies of the 3rd volume 8vo, following the Avis au Relieur, there is the 'Journal d'un voyage dans l'intérieur de l'Afrique, fait en 1790 et 1791, par Jacques van Reenen et autres colons du Cap de Bonne-Espérance, à la recherche de l'équipage du Grosvenor ... publié par le Capitaine RIOU. Pour servir de suite au premier voyage de Levaillant et propre à éclaircir la partie topographique de cet ouvrage' Paris, H.J.Jansen, an 6, 78 pp. (Ogilvie 1962:33, no.37). This is the French translation of the English '*Journal of a voyage*' by Edward Riou, 1792.[4] The French translation was also available separately at frs 1,25 and announced on '24 fructidor an 6' or 10 September 1798 (*Journal typographique et bibliographique* I, 1798:566).

There are the following plates listed according to the pagination of the 4to edition. They were reproduced by Kennedy (1976, L73-94).

Volume I
(p.12) Campement sur l'habitation de J.Slaber, à Thée Fonteyn. Pl.I
(p.56) Vue du Cap de Bonne Espérance pris en rade. Pl.II
(p.95) Anhinga Mâle. Pl.III
(p.114) Campement au Heere Logement. Pl.IV
(p.126) Passage de la Rivière des Elephants. Pl.V
(p.162) Campement à la Horde de Klaas Baster. Pl.V bis
(p.224) Euphorbe-Concombre. Pl.VI

Volume II
(p.20) Tête d'Hippopotame Mâle, Hippopotame Femelle. Pl.VII
(p.58) Tête de Giraffe. Pl.VIII
(p.66) Camp de la Giraffe sur le bord de la Rivière d'Orange. Pl.VIII bis
(p.84) Loup tacheté. Pl.IX
(p.103) Grand Namaquois. Pl.X
(p.103) Grande Namaquoise. Pl.XI
(p.127) Euphorbe à côte de melon. Pl.XI
(p.127) Euphorbe à chenilles. Pl.XI bis
(p.200) Houzouana. Pl.XII
(p.201) Houzouana. Pl.XIII
(p.208) Femme Houzouâna. Pl.XIV
(p.208) Femme Houzouâna. Pl.XV
(p.240) Sanglier à large groin. Pl.XVI
(p.268) Le Singe noir. Pl.XVII
(p.316) L'Oricou. Pl.XVIII

The original watercolours for most engravings are known, mainly in the Cape Town collection. The 22nd plate 'l'Oricou,' is also found in the *Oiseaux d'Afrique*, pl.9 (1796). The map is entitled 'Carte de la Partie Méridionale de l'Afrique, pour servir d'intelligence aux deux voyages de Levaillant. Se trouve chez H.J.Jansen et Perronneau, Imprimeurs-Libraires, à Paris.' It was signed 'Levaillant Delin.' and 'Perriez sculp.' Further comments were given by Robinson (1973:136) and Forbes (1973:95-99).

Later French editions are mentioned by Ogilvie (1962, nos. 38-40):

Amsterdam, chez les libraires associés. 3 vols. 8vo. 1797
Bruxelles, chez B.le Franq. 3 vols. 8vo. 1797
Paris, Desray 'Nouvelle édition' 3 vols. 8vo. an XI (1803).

12.3.3 *The Atlas*

In 1818 the publisher Desray put together his 1798 edition to the first *Voyage* and his 1803 one of the *Second Voyage*. This combined edition was available either as a 5-volume set with plates bound in with the text, or as 6 volumes with the plates separate (Robinson 1973:137-138). There were 43 plates, i.e. the 20 of the new edition of the first voyage, the 22 of the second voyage, and the map. The numbering of the plates is slightly different than before (Ogilvie 1962, no.46).

12.3.4 *Translations*

Both journeys were soon made available in the major European languages as enumerated by Ogilvie (1962). I give a short summary of the unabridged translations published before 1825.

(a) *English*

Some notes on these translations can also be found in Robinson (1973:139-144).

Travels from the Cape of Good-Hope, into the interior parts of Africa, including many interesting anecdotes. London, William Lane.
[First Voyage] 2 vols. 8vo. 1790. I: i-xxiii, 1-442. II: 1-464.
It was translated by Elizabeth Helme (d.1816) who allowed herself

4. The *Grosvenor* belonged to the East India Co. On its fourth return journey, it left Trincomalee on 13 June 1782 and ran ashore on the African coast on 4 August. Several expeditions were launched to look for survivors, as told, for instance, by Kirby (1953).

some liberties with the text (Robinson 1973:139). There are 13 plates including as frontispiece of vol.I 'Dangerous attack of a tyger' (Kennedy 1976,L104).

Travels into the interior parts of Africa, by the way of the Cape of Good Hope, in the years 1780, 81, 82, 83, 84 and 85. Dublin, Chamberlain & Rice (etc.).
[First Voyage] 1 vol. 8vo. 1790. no plates. I: i-xv, i-xiv, 1-534.

Travels into the interior of Africa, by way of the Cape of Good Hope; in the years 1780, 81, 82, 83, 84 and 85. London, G.G.J. and J.Robinson.
[First Voyage] 2 vols. 8vo. 1790. 12 plates. I: i-xii, 1-395. II: 1-403.
[same] second edition, 1796. 2 vols. 8vo. I: i-xxiv, 1-376. II: 1-403.

New travels into the interior parts of Africa, by the way of the Cape of Good Hope, in the years 1783, 84 and 85. London, G.G.J. and J.Robinson.
[Second Voyage] 3 vols. 8vo. 1796. 22 plates and 1 map. I: i, 1-288. II: 1-383. III: 1-488.

Travels into the interior parts of Africa, by the Cape of Good Hope, in the years 1780, 81, 82, 83, 84, 85. Glasgow, printed by Thomas Duncan.
[First Voyage] 2 vols. 8vo. 1802. No plates. I: 1-252, II: 1-228, 1-4.
This edition included (Ogilvie 1962:21) at the end of volume 2 a report of 24 pages entitled: 'Narrative of the loss of the Grosvenor East-Indiaman, which was wrecked on the coast of Caffraria, in Africa, on the fourth of August 1782, compiled from the testimony of one of the survivors.' This same report has been attributed to George Carter (1791).

(b) *German*

Reise in das Innere von Afrika, vom Vorgebirge der guten Hoffnung aus, in den Jahren 1780 bis 85. Frankfurt am Main, Johann Georg Fleischer.
[First Voyage] 2 vols. 8vo. 1790. 12 plates. I: [i-xxii], 1-317. II: 1-336, [i-xiv].

Reise in das Innere von Afrika, vom Vorgebürge der guten Hoffnung aus. In den Jahren 1780 bis 1785. Zweite Auflage. Frankfurt am Main, Philipp Heinrich Guilhauman.
[First Voyage] 2 vols. 8vo. 1799. 12 plates. I: i-xvi, 1-312. II: 1-336.

Neue Reise in das Innere von Afrika (etc.) Frankfurt am Main, Philipp Heinrich Guilhauman.
[Second Voyage] 3 vols. 8vo. 1797. (not seen)

Reisen in das Innere von Afrika während der Jahre 1780 bis 1785. Berlin, Voss.
[First Voyage] 1 vol. 8vo. 1790 (and reprint 1801). 12 plates. I: i-x, 1-428.
[Same][Second Voyage] 2 vols. 8vo. 1796. 20 plates and map. II: [1-8], 1-442. III: [1-2], 1-442.

All three volumes of this last title were translated by Johann Reinhold Forster, who added some scientific names (12.15.3). Ogilvie's nos.31 and 52 vol.1 both refer to this work. The volumes appeared in a series which is not really rare as such: *Magazin von merkwürdigen neuen Reisebeschreibungen*, volumes 2, 12 and 13 respectively. Band 12 had an additional engraving from a drawing by George Forster, depicting the Klipspringer (Kennedy 1976,L95). The volumes were reprinted in Vienna, F.A.Schrämbe in the same series: vols. 3,4 (first voyage), 23-25 (second voyage) according to a note by J.O. (1979).

(c) *Dutch*

Reize in the binnenlanden van Afrika, langs de Kaap de Goede Hoop, in de jaaren MDCCLXXX tot MDCCLXXXV. Leyden en Amsterdam, Honkoop en Allart.
[Both Voyages] 5 vols. 8vo. 1791-1798. 34 plates and 1 map.
I (1791): i-xxxiii, 1-352. II (1791): 1-360. III (1796): i-xxxii, 1-332. IV (1797): 1-374. V (1798): [i-iii], 1-384, 337-394 [sic].

The translation was by J.D.Pasteur, who added at the end of volume 5 a register to the animals and plants with binominal names. The set was sold for Hfl.20,35. Landwehr (1976:363-364) listed the titles of the plates stating that the copperplates were not coloured like the French edition, but like colour drawings supplied especially by Levaillant.

(d) *Italian*

Prima viaggio di F. Le Vaillant nell'interno dell'Africa per Capo Buona Speranza. Milano, Sonzogno e Comp.
[Both Voyages] 7 vols. 8vo. 1816-1817. 32 plates. I (1816): i-xxxii, 1-243. II (id.) 1-276. III (id): 1-226. Second Voyage 1817: I: i-xxxvi, 1-277. II: 1-310. III: 1-274. IV: 1-263.

The translation was made by F.Contarini.

(e) *Swedish*

Resa uti södra Africa, åren 1780 till 1783. Åbo, J.C.Frenckell.
[First Voyage] 1 vol. 8vo. 1795. No Plates, pp. i-iv, 1-280.

Sednare resa uti södra Africa, åren 1784 och 1785, från Goda Hopps Udden jämte atlantiska hafwet till och innom wändkreten. Siderholm, Johan Pfeiffer.
[Second Voyage] 2 vols. 8vo. 1798. I: [1-8], 1-288, [1-11]. II: [1], 289-592, [1-10].

Both were translated by Samuel Ödman, who added a few names of animals (12.15.3) and a register.

(f) *Danish*

The National Union Catalogue lists one Danish volume of the second voyage. It is not included in Ogilvie (1962).

Vaillants Ander Reise i den indre deel af Afrika. København, A.Goldin.
[Second Voyage] 1 vol. 8vo. 1798. pp. 1-418.

Bégin (1832:377) mentioned Danish translations of both journeys (not seen).

12.3.5 *Authorship of Voyages*

There is a strong tradition that Levaillant's travel books were not entirely his own work, but that they were edited before appearance. Sometimes this editor is credited with a more substantial share even to the point of writing the whole story. The Catalogue of the British Museum (Natural History) stated that the first *Voyage* 'was edited and partly written by C.Varon', while the *Second Voyage* 'was edited by C.Varon, to whom it is dedicated, and P.J.B.Legrand d'Aussy' (see Forbes 1965:117). Crichton (1843:23) alleged that Casimir Varon,'himself a traveller and a poet' amended the style of the second work. Barrow (1801,I:360) attributed the *Second Voyage* to the Abbé Philippo or Philippeaux. This was supplemented by Malte-Brun in a French translation of another work by Barrow (1807,I:403) saying that rumours in Paris had substituted Philippo 'que nous ne connoissons point' with a Mr.Varon 'que nous ne connoissons guère.' This was again proclaimed a useless suggestion in an English review of this French translation (Anon. 1810:202), just showing the nationalistic rivalry between the two countries.

Bokhorst (1973a:10) may be as near the truth as we are likely to get. Apparently, the First Voyage was edited by Levaillant's father. He is said to have received, following a decree issued by the National Convention of 4 September 1795, 2000 francs for his work (cf. Bégin 1832:377, Quérard 1833,V:268). The Second Voyage was produced with the sole help of Varon who 'introduced more of his own views than Vaillant Sr. had done.'

12.4 THE OISEAUX D'AFRIQUE

Levaillant's major work was the *Histoire Naturelle des Oiseaux d'Afrique*, published in Paris in 51 installments between 1796 and 1812 or 1813. It is a difficult work to use. In practice, because the six volumes are large and heavy – people with access to the quarto edition are fortunate, even though the plates may be inferior in quality than in the folio edition. Scientifically, doubts about the integrity of the author are common. This is partly due to the liberties which Levaillant allowed himself, partly to our expectations. The six volumes together contain 300 plates and descriptions of 284 birds (following the presentation by Levaillant). Because Levaillant is primarily known for his travels in the South African interior, we assume that he intended to give us an exposition of the results of his expeditions. That would have been an incredible contribution to the study of African birds which would have brought fame and recognition to Levaillant. It is important to realise, however, that Levaillant had another purpose. The title of the book already indicated a rather grander scheme, as it referred to *all* African birds. It was, therefore, accidental that some of those happened to occur in the southern part of the continent. Levaillant did not even feel restricted by this boundary and he introduced a number of birds unknown from Africa, but somehow related to the birds of that region. For several reasons to be explored below (12.4.4), quite a number of birds described and depicted in the work do not occur in the regions where Levaillant claimed to have seen them. These serious inaccuracies have hindered good access to the valuable parts of the work.

In the following paragraphs I hope to give some insights in the contents and the scientific value of the *Oiseaux d'Afrique*. In the first place I will give some details about its bibliography (12.4.1-3). In 12.4.4 different viewpoints about the scientific accuracy of the work will be discussed. The *Oiseaux d'Afrique* was an important source of information for many scientists in the late 18th and early 19th centuries. Levaillant only gave French names to the birds described in the book. However, his descriptions were used quite liberally by others and a great number of scientific names of South African and other birds were based on them. The significance of the books in which Levaillant's information was repeated is discussed in 12.4.5 and 12.4.6. These include some details, both bibliographically and scientifically, about the three (partial) translations of the *Oiseaux d'Afrique* which appeared around 1800. Finally, in 12.4.7 the contents of the six volumes are described with emphasis on the birds of South Africa.

12.4.1 *Bibliography*

The *Histoire Naturelle des Oiseaux d'Afrique* was published in 51 parts over a period of 17 years with three different publishers. Title pages of the six volumes exist with different dates as shown by Lovely (1968:48-49). The title pages of volume I may be dated 1796, 1799, 1805 or 1806; vol. II 1799, 1805 or 1806; vol. III 1802, 1805, 1806; vol. IV 1805; vol. V 1806 and vol. VI 1808. The book is bibliographically complex due to the many reprints or re-issues and their mixture in most sets.

Four editions were issued concurrently.

1. Folio. 6 vols. with duplicate plates, both coloured and plain.
   I: pp. i-xii, 1-129, pls. 1-49. II: pp.1-151, pls. 50-97. III: [1-3], 1-147, pls. 98-150. IV: pp. 1-104, pls. 151-199. V: pp. 1-124, pls. 200-247. VI: pp. 1-132, pls. 248-300.
   Price per livraison 30 francs (Quérard 1833:268). According to Brunet (1862, col. 1034) there was one copy on parchment paper (now unknown).
2. Large Quarto 'papier vélin' with duplicated plates.
   I: pp. i-xi, 1-194, pls. 1-49. II: pp. 1-206, pls. 50-97. III: pp. 1-231, pls. 98-150. IV: pp. 1-141, pls. 151-199. V: pp. 1-163, pls. 200-247. VI: pp. 1-188, pls. 248-300.
   The price per livraison was recorded as 15 francs (Quérard 1833:268) or 18 francs (Brunet 1862, col. 1034).
3. Large Quarto 'papier fin' with duplicated plates. Price per livraison 6 francs (Quérard 1833:268). Pagination as 2 above.
4. Duodecimo. Plain plates only. Price per volume 3 frs 60 cents. Only two volumes were issued, both dated 'an VI' (1798) published by Fuchs, Paris. The text of the first 117 birds is given, of which only 45 are illustrated.
   I: pp. [iii-vii], viii-xix, 1-353, [1-2], pls. 1-26. II: pp. [1-3], 1-454, [1], pls. 27-45.
   The date on the title-page may not be too reliable. The text of 117 species corresponds with volumes 1,2 and part of 3 of the other editions. Plate 117 of the folio edition appeared somewhere between 1801 and 1804 (see below). This 12mo edition might have been started in 1796 by H.J.Jansen, as it is included in his advertisement of 1795 anouncing the work (in the back of his edition of the *Second Voyage*, vol. 3, 1795).
   It is not correct that there are 117 plates in the 12mo edition (Ogilvie 1962:68). Lovely (1968:48) saw the first volume only with 26 plates. I saw a copy of the 12mo edition in the University Library of Stockholm, the 45 plates of which represent birds described under the following numbers.
   I nos. 1-4, 6-10, 12, 14, 15, 17, 21, 24, 25, 28, 31, 34, 36, 38, 42, 44, 47, 50, 53.
   II nos. 54, 57, 60, 61, 68, 72, 78, 82, 87, 91, 93, 97, 98, 103, 107f1, 108, 112f2, 114.

The printing history of the folio edition explaining the different title pages could have been as follows. The first installment appeared in 1796 ('an IV') with the first title-page (the number in brackets indicating the volume number):

(I) A Paris, de l'Imprimerie de H.J.Jansen et Compagnie, Place du Muséum. L'an quatrième de la République Françoise [1796].

In the course of publishing the first volume, probably after the third installment ca.1798, the project was taken over by J.J.Fuchs, who issued a new title-page for the first volume. Some copies include both these titles.

(I) A Paris, chez J.J.Fuchs, Libraire, Rue des Mathurins, Hôtel de Cluny. De l'Imprimerie de H.L.Perroneau, Rue des Grands Augustins. An VII de la R.F. (1799).
[In some copies: Perroneau, Rue du Battoir]

Fuchs continued to publish through volumes 2 and 3 and his name appears on their title-pages, as vol.I above, with date of volume II as 'An VII de R.F. (1799)' and volume III 'an X (1802)'.

In the course or at the end of volume 3, the rights were again taken over. Possibly this was after the publication of plate 138, as Anker (1974:156) recorded a copy where vol.3 ends with plate 138. The next publisher was Delachaussée in Paris. He provided new title-pages for the first three volumes to make a uniform set.

(I) Paris, Delachaussée, Rue du Temple, No.47. XIII-1805.
(II) [idem]
(III) [idem]

This continued on the titles of the next volumes.

(IV) Paris, Delachaussée, Rue du Temple, No.37. XIII-1805.
(V) Paris, Delachaussée, Rue du Temple, No.40. XIV-1806.

(VI) Paris, Delachaussée, Rue du Temple, No.40. M.DCCC.VIII.

While the last volumes were in the process of production, Delachaussée brought the work on the market with slightly variant titles:

(I) Paris, Delachaussée, Rue du Temple, No.40. M.DCCC.VI.
(II) Paris, Delachaussée, Rue du Temple, No.40. M.DCCC.VI.
(III) Paris, Delachaussée, Rue du Temple, No.40. M.DCCC.VI. [or an XIV-1806; not seen]
(IV) [no variants recorded, always as above.]
(V) Paris, Delachaussée, Rue du Temple, No.40. M.DCCC.VI.
(VI) [no variants recorded, always as above.]

The book was issued in installments ('livraisons') each consisting of 6 plates with text. No copies with wrappers (if these ever existed) have been recorded. Some dates are given in the Catalogue of the British Museum (Natural History), London according to the *Journ.gén.Litt.France*. The content of the parts, however, is not specified. Some indications from other contemporary sources provide some small clues.

(i) Daudin published the two volumes of his *Traité êlementaire* in 1800. He quoted Levaillant's plates up to no.97, excluding several like nos.61-82.
(ii) According to Streseman (1953a:322), Temminck (1807) knew the book up to plate 215 at the end of 1806.
(iii) Levaillant (1801:ii) referred to the 15th installment of the *Ois.Afr.* to attract attention to the work of the artist Langlois (see 12.4.2). Maybe this was the last issue then available?
(iv) J.R.Forster published his German edition with plates 1-18 in 1798. Probably, considering the time-lag between a French edition and the printing of the translation, these plates must have appeared by the beginning of 1798 at the latest.

The following reconstruction of the contents and the dates of the livraisons may be made. It should be emphasised that the evidence is very limited. The number in brackets is that of the installments; it is followed by the plates included in that part and a possible year of appearance.

I			II			III		
(1)	1-6	1796	(9)	49*-54	1800	(17)	97*-102	?
(2)	7-12	1796-98	(10)	55-60	1800	(18)	103-108	?
(3)	13-18	1796-98	(11)	61-66	1800	(19)	109-114	?
(4)	19-24	1798	(12)	67-72	?	(20)	115-120	?
(5)	25-30	1798	(13)	73-78	1801	(21)	121-126	?
(6)	31-36	1798	(14)	79-84	1801	(22)	127-132	?
(7)	37-42	1799	(15)	85-90	1801	(23)	133-138	?
(8)	43-48	1799	(16)	91-96	1801?	(24)	139-144	1804
						(25)	145-150	1805

*Plate 49 belongs to volume I but is supernumerary and may have been included with the first issue of volume II. Plate 97 is a similar case; here the imprint on the plate states t.III.

IV			V			VI		
(26)	151-156	1805	(35)	200-205	1806	(43)	248-253	1808
(27)	157-161	1805	(36)	206-211	1806	(44)	254-259	1808
(28)	162-166	1805	(37)	212-217	1806	(45)	260-265	1808
(29)	167-171	1805	(38)	218-223	1807	(46)	266-271	1808
(30)	172-176	1805	(39)	224-229	1807	(47)	272-277	1809
(31)	177-181	1805	(40)	230-235	1807	(48)	278-282	1810
(32)	182-187	1806	(41)	236-241	1807	(49)	283-288	1810
(33)	188-193	1806	(42)	242-247	1807	(50)	289-294	1810
(34)	194-199	1806				(51)	295-300	1812-13

The date of the last livraison either was 1812 or 1813. The *Bibliographie de l'Empire Français* II (1813):258 noted the 51st livraison of the 'Hist.Nat.des Oiseaux de Paradis' which book, however, had only 19 issues which ended appearing in 1806. So this reference might refer to the *Oiseaux d'Afrique*: '51e livr. in folio de 3 feuilles plus 6 planches. 500 exempl. petit-papier 48-0, grand papier 56-0.'

12.4.2 *The plates and the artists*

The following remarks apply to all illustrated bird books published by Levaillant, but with emphasis on the *Oiseaux d'Afrique*. The original drawings of most specimens must have been prepared between 1785 and 1796. Possibly, Levaillant collected some sketches during his time in South Africa. There is no evidence that he was accompanied by a painter during his expeditions, certainly no reference is ever made to such a person in his publications. That leaves Levaillant as the only likely candidate for authorship of the sketches made on the spot. The drawings connected with his travels include South African landscapes and scenery, which are realistic enough to prove that they were made locally and not from hearsay. Bokhorst (1973c:99-101) reviewed Levaillant's personal involvement from his writings and other sources. He concluded that Levaillant must have played a role at least in the case of topographical, ethnological, botanical and mammalogical drawings.

It has been mentioned in 7.6.3, that Levaillant's handwriting is found on many bird drawings in the Gordon Atlas. He obviously studied them in detail and he was able to assist Gordon in the identification of some of the birds. Apparently this cooperation stopped there. The names found in the Gordon Atlas are rarely those recorded in Levaillant's books. The drawings in the Gordon Atlas were not copied by or for Levaillant, because no similarity has been noticed in any instance.

Several artists were involved in the preparation of the bird drawings from which the engravings were produced afterwards. Most of the birds were depicted after stuffed specimens as was customary in that period. As far as can be deducted from the limited evidence, the birds in the *Oiseaux d'Afrique* were drawn by Johann Lebrecht Reinold. His name is mentioned on many of the plates in the first three volumes. Some of the other drawings, especially those used to illustrate the later books, were mainly attributable to Pierre Paul Barraband or Jean Gabriel Prêtre. The parts played by these artists and other 'hands' were expertly discussed by Bokhorst (1973c), unfortunately without resolving the problem of identity in each case.

Johann L.Reinold, the main artist, is not a well-known figure. He must have been from German extraction. He was a productive worker. In December 1797, Graf von Hoffmansegg wrote to his sister: 'Jetzt gibt [Levaillant] alle seine Afrikanische Vögel in Kupfer heraus, sie sind aber sehr teuer, obgleich auch sehr schön, die Zeichnungen dazu, die ihm ein Teutscher, Reinold, macht, sind noch schöner, er hat schon 1500 beisammen' (from Stresemann 1951:93).

Pierre Paul Barraband (1767-1809) was involved with some of the later drawings.[5] He was taught by Malaine. Barraband specialised in flowers and birds, made paintings on porcelain and apparently did some work for the tapestry manufactory at

5. Barraband, also spelled Barraban. His first name was also recorded as Jacques.

Sèvres.[6] Besides his cooperation with Levaillant, he also illustrated Sonnini's edition of the *Histoire Naturelle* by Buffon, and the *Histoire des insectes* by Latreille. In 1807, he was appointed professor at the Ecole des Beaux-Arts at Lyon, where he died in 1809. Clearly, Levaillant could have asked his assistance between 1800 and 1807 (Bokhorst 1973a:16).

Jean Gabriel Prêtre, from Swiss origin, arrived in Paris at the beginning of the 19th century (Bokhorst 1973a:16). The extent of his contributions is unknown. A large watercolour preserved as UBL 63 (see 12.9) is signed on the tree 'J.G.Prêtre'. He also assisted C.J.Temminck in the production of his *Planches Coloriées*. In 1830, Temminck named the 'Perroquet Prêtre' (*Psittacus pretrei*) honouring this 'peintre habile dont le pinceau nous est d'un grand secours pour la publication de ce receuil.'

The plates in the *Oiseaux d'Afrique* were studied by Lovely (1968) in a large number of sets. She showed that all sets differed having good and bad states of the same plates engraved by different artists without apparent order. Four engravers are known to have been engaged in the production of the *Oiseaux d'Afrique*, possibly at different periods when plates were reprinted. The best engravings were by Claude Fessard (b.1740) whose name appeared on some versions of plates 1-30, 32-60, 67-78, 85-96 and 169-198. A second engraver was Jacques Louis Perée (b.1769) who signed his name on plates 61-66, 79-84, 97-102, 104 and in small print on plates 121-123, 127 and 130. A few other plates in the first three volumes were signed by 'Gremilliet' or 'sous la direction de [Louis] Bouquet' (1765-1814). All plates are stated to be from the 'Imprimerie Langlois' with minor differences in the actual wording. All 300 plates in the *Oiseaux d'Afrique* were reproduced in monochrome by Kennedy (1976, L172-L411).

There is some confusion about the cooperation of the artist Jean Baptiste Audebert (1759-1800). Ripley (1973:275) ascribed the general artistic supervision of the whole work to him. Balis (1968:76) stated that Audebert directed the production of the first 13 issues (plates 1-79). According to Nissen (1978:160), the first plates resulted from a cooperation between Audebert and Barraband until the printing was taken over by Langlois. Apparently, Audebert may have helped with the first two or three installments. The involvement of Barraband in the process of engraving is without evidence. Audebert's involvement was important, because he applied his new method to print the engravings in colour to be retouched by hand later (Pieters 1981:230).

12.4.3 *Presentation copies*

There were a number of folio sets of the *Oiseaux d'Afrique* which contain a special dedication by Levaillant. Volume I of the set in the Rijksmuseum van Natuurlijke Historie, Leiden contains a watercolour in front showing an eagle (*Haliaeetus vocifer*) with its wings spread out, holding a scroll on which is written 'No.1. L'un des six exemplaires, f.lio soignés par l'auteur' and signed F.Levaillant. It is further described in 12.10. Number six apparently is in the Yale University Library, New Haven, which is stated to be 'No. 6 of an edition of 6 copies signed by the author' (Ripley & Scribner 1961:170).

After preparing six presentation copies, Levaillant may have changed his mind. The Johannesburg Public Library has a set with a very similar added frontispiece, with almost exactly the same eagle, holding a scroll on which is written: 'N.9. L'un des douze exemplaires retouché par l'auteur, pour la bibliothèque de Monsieur ... .' There is a blank space and the signature of F.Levaillant at the bottom. Above right on the scroll is written 'Levaillant pxit.' This set includes one other original watercolour bound after plate 9: 'No.9 bis - tête de l'Oricou, de grandeur naturelle' signed in the bottom right: 'F.Levaillant pxit' showing the head of *Torgos tracheliotos*. This set was described by Lovely (1970).

A watercolour which may have been a study for this kind of frontispiece is described below as RPK 1 (see 12.12).

12.4.4 *Accuracy*

The initial reception of Levaillant's *Oiseaux d'Afrique* and his other bird books was quite favourable. Some authors found minor mistakes, but those being common in an incipient branch of science, no special attention was paid to them. This is directly obvious from the liberal and uncritical way in which the birds described by Levaillant were quoted by some 19th century scientists like Cuvier (1816), Wagler (1827), Bonaparte (1857) and many others. Sonnini (1804,I:243), for instance, remarked upon the beauty of the book: 'l'on doit lire les détails les plus intéressans et les plus complets sur les habitudes de plusieurs oiseaux inconnus jusqu'au moment où il a amené tout à coup leur histoire au point où était à peine portée celle des oiseaux qui nous étoient les plus familiers.' Andrew Smith (1838-1848) too mentioned Levaillant's 'general accuracy' (pl.34) while noting some inaccuracies: 'I am sometimes disposed to believe that the renowned traveller, whom no one can respect and honour more than I do, has occasionally, from accident, probably through an intermixture of specimens, considered birds as natives of South Africa which belong to other countries' (pl.72, 1842). C.J.Temminck, always a true supporter of Levaillant, could not deny certain mistakes, but added that it would be wrong 'en imputant à mon digne et respectable ami Le Vaillant la moindre connaissance des supercheries que nous signalons; ce savant naturaliste a été dans la ferme persuasion que les sujets sur lesquels ses descriptions ont été faites, n'avoient point subi de mutilations' (Temminck 1823). A similar eulogistic expression was written by Wagler (1827, introduction).

Criticism became harsh only after 1850, in an age when the avifauna of South Africa had become far better known. Some species described by Levaillant still had not been found again in South Africa but were known to exist in Asia, while others were shown to have been manufactured from different species. The first elaborate critique of Levaillant's work appeared in 1857 written by Carl Sundevall in Latin, but the introductory section was translated into French in 1865. Sundevall's approach was very kind, but still he introduced doubts about Levaillant's scientific honesty. He showed many mistakes, which he summarized as follows (in the translation by Sclater 1905:4):

1. Birds accurately described by Le Vaillant and easily recognisible as from South Africa 134
2. Birds probably from South Africa, with faulty descriptions 9
3. Doubtful birds, not recognisable from descriptions 10
4. Birds stated by Le Vaillant to have been obtained in South Africa, but

6. The collaboration with the Manufacture National de Sèvres by Barraband was called ephemeral; none of his paintings are preserved there (T.Préaud, Archiviste, in litt., 9 November 1985).

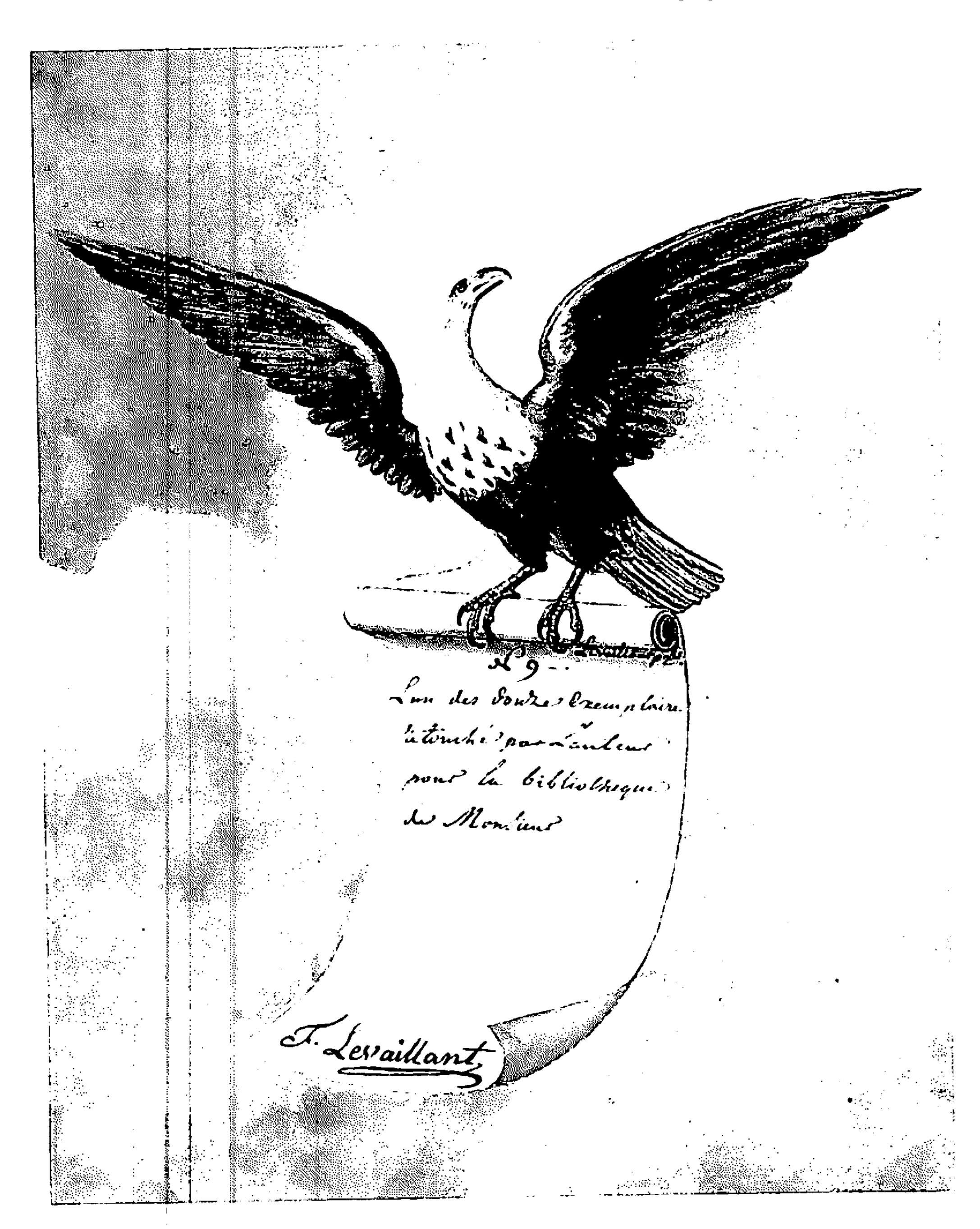


Fig. 96 Frontispiece of a presentation copy of Levaillant's *Histoire Naturelle des Oiseaux d'Afrique*, in the Johannesburg Public Library (12.4.3).

which almost certainly came from elsewhere	50
5. Birds described by Le Vaillant from countries other than South Africa	71
6. Birds almost certainly made up and not existing in nature	10
Total	284

Soon after, Layard (1867) had the similar task to review the birds of Levaillant, probably without knowledge of Sundevall's paper. He was far more critical and suggestive in his words, talking about 'Le Vaillant's faulty descriptions and errors', even 'deliberate falsehoods.' Finsch (1867,I:17) too showed how from 137 parrots described in the *Histoire Naturelle des Perroquets* 84 were good species, 20 were varieties while 16 were questionable.

It is with this background of serious doubt and uncertainty that Levaillant's books are treated today. An analysis of all birds described in the *Oiseaux d'Afrique* follows in 12.4.7, while the results concerning the various categories of species are summarized in Table 4.

The plates are a well-known feature of the book and they have been more often consulted than the accompanying text. Many of the birds depicted cannot be called good representations. Often the birds on the plates are recognisable enough, but in some cases, especially in taxonomically complex groups, the specific characteristics are not shown in enough detail to satisfy the current classifications. The originals of the plates were not drawn after living or recently killed examples. All evidence shows that the plates were made after mounted specimens by various artists, be it under the close supervision of Levaillant (12.4.2). This can explain minor inaccuracies, but the mistakes cannot always be removed in this way. Assumedly, some speci-

Table 4. Numerical survey of the birds described in Levaillant's Histoire Naturelle des Oiseaux d'Afrique

Volume	I	II	III	IV	V	VI	Total
Number of plates	49	48	53	49	48	53	300
Total figures on plates	51	66	94	66	52	66	395
Number of species following the classification by Levaillant							
Species depicted	46	47	53	45	40	46	277
Species described in text	5	1	0	0	2	2	10
Total number of species	51	48	53	45	42	48	287
Number of species following current classification and identification							
Total number of species described or depicted	51	48	53	45	43	48	288
Species occurring in South Africa	21	18	31	22	16	28	136
Species said to be South African but absent or unknown	16	8	11	12	13	12	72
Species from other countries	14	22	11	11	14	8	80
Number of scientific species names proposed on the basis of the plates and descriptions							
Based on South African species	37	12	46	31	13	13	152
Based on 'indeterminate' species said to be from South Africa	22	4	14	21	10	4	75
Based on species from other countries	16	28	15	13	11	5	88
Total names	75	44	75	65	34	22	315
Types among the South African species	12	6	19	12	6	5	60

mens collected by Levaillant in South Africa were not taken to Europe or their skins had deteriorated to such an extent that their true form and colour were no longer recognisable in detail.

Among the birds described, 72 species (24%) do not occur in South Africa although Levaillant claimed to have observed them there. Surely this is the hardest pill to swallow. While researching this book, I have been trying in my mind to vindicate Levaillant in this respect. In all honesty, it cannot be done. Still, one should not judge Levaillant by the standards of today or even those of the middle 19th century, realising how little Levaillant had to guide him in respect of books or collections. There could be three extenuating circumstances explaining Levaillant's incorrect assumptions. They cannot however, justify them.

(i) Many of the wrongly attributed birds were said to occur either in Caffraria (eastern Cape) or in Great Namaqualand (South Namibia). These are exactly the two regions of which it is not quite certain that Levaillant visited them at all. Assuming that he did, he may not have had the chance to study the birds as thoroughly as elsewhere. In both places he travelled on horseback without waggons. That limited him in the time available for study and in the number of birds to be carried. While in Namaqualand, he may have been afraid to overload his waggons, filled as they were already with birds and the skin of the giraffe.

(ii) Most identifications have been made on the basis of the plates alone. Possibly, the text is more accurate than the depictions. To mention a very early example, Thunberg (1799) commented on Levaillant's 'Faucon chanteur' of plate 27 showing six obvious differences between the text and the plate.

(iii) In some instances, we are judging Levaillant by 20th century standards and ideas. Let me point out just two examples, while there may be many others. When Levaillant gave a picture of an elephant (CT 96 and UBL 153), it showed the Indian species (*Elephas maximus*), not the African one. That is difficult to comprehend today. However, Levaillant – and practically all his contemporaries, including Buffon and Linnaeus – considered all elephants conspecific and hence there was no harm in depicting a specimen from another area. Another example is provided by the owl shown on plate 40 in the *Oiseaux d'Afrique*. The owls described by Levaillant cannot be identified with certainty because the important characters are not detailed enough. Mees (1967) showed that the specimen on plate 40 was in fact a European bird. At the same time, Levaillant is known to have seen an African specimen, which he described in the text and depicted on a watercolour (RMNH 19). Levaillant considered the two animals as conspecific and maybe he selected the drawing of the European animal as being better executed. Such cases are common too in today's practice of illustrating books.

Considering all doubts about the *Oiseaux d'Afrique*, why do we need to bother at all? Why not declare this work to be an historically dated one without importance to current science, which at most gives us some insight in Levaillant's fanciful mind? Or, if we must admit that it was a serious attempt, couldn't it be a work with beautiful plates telling about the state of affairs in early 19th century France? The reason for our present continuing interest is both historical and taxonomical. Historically, the book contains important clues about Levaillant's activities in South Africa. Taxonomically, the book is of great significance. Table 4 shows that Levaillant described 288 species of birds, of which 136 are good species occurring in South Africa. Many of these were unknown to the scientific community when the book was written. Most of the species described in the *Oiseaux d'Afrique* have one or more scientific names attached to them, based exclusively on this work. According to the analysis of its contents (12.4.7), some 315 names were thus provided by different authors (cf. 12.4.5 and 12.4.6).Among those, there are 60 in current use for South African birds. Hence the specimens on the plates should be considered the type specimens or at least one of the syntypes. As the present existence of these specimens in museums can rarely be shown, the descriptions and plates provided by Levaillant become very important for purposes of nomenclature. For that reason, no student of African ornithology can forget about Levaillant's pioneer efforts.

We need to remain critical of Levaillant's work. We are now, however, in a position to identify his mistakes. We should forget about the 'inventions of Levaillant' (Clancey 1980:297), serious though they are, and admit, in the words of Sclater (1905:5) that 'there is no reason to reject the whole work as unworthy of credence because he fell into a certain number of errors.'

12.4.5 *Three translations*

(a) *J.R.Forster's German translation*

F.le Vaillants Naturgeschichte der Africanischen Vögel mit Anmerkungen von D.Johann Reinhold Forster. Halle, bei Fried:Christoph Dreyssig. 1 vol. 12mo. Pp. [1], i-xv, [xvi], 1-64, pls.1-18.

This translation is very rare, although zoologically important because Forster added scientific names (Heipertz 1962). The volume was described by Richmond (1919). There were two editions, one with plain plates, the other with coloured plates. The plates are engraved with a number, no name. Number 3 'der Flammadler' is only shown on the title page.

Only the text of the first 18 birds with their plates appeared. The project may have stranded due to the death of Forster on 9 December 1798. The booklet starts with a 'Nachricht an die Käufer' in which the publisher Dreyssig promised to translate the volume as it appeared in France, delivering one part ('Bändchen') each quarter describing 18 birds each. The price would be 1 Thaler 12 Groschen for a a plain copy, 2 Thaler for a coloured one. He also noted that the translation by Bechstein (see below) had been announced, but had not not yet appeared. The date 1798 is, as far as I can ascertain, not recorded in the book itself. Richmond (1919) mentioned it and it appears in handwriting in the copy which he discussed.[7] If this volume would be earlier than Bechstein's translation, it should have appeared in 1797. There is no evidence to prefer one above the other, and 1798 may continue to be quoted with reserve.

Richmond (1919) discussed the nomenclature. Forster gave all 18 species a German name, added Levaillant's French name and 'endlich sind zu Vervollständigung des Linneischen Systeme auch passende systematisch-lateinischen hinzu gefügt worden' (Forster 1798:xv). These names appeared as follows, both in the index on p.[xvi] and in the body of the text in the appropriate places.

Raubvögel

1	Le Griffard, der Greifadler. (Harpacter)	S.1
2	Le Huppard, der Schopfadler. (Eulophus)	-7
3	Le Blanchard, der Flammadler. (Undatus)	-10
4	Le Vocifer, der weisse Fischadler. (Vociferator)	-14
5	Le Blagre, der kapsche Fischaar. (Ichthyotheres)	-18
6	Le Caffre, der Kafferadler. (Cafer)	-23
7 und 8.	Le Bateleur, der Schlagadler. (Platages)	-25

Geyer

9	L'Oricou, der Ohrlappe-Geyer. (Vultur Tracheliotos)	-29
10	Le Chasse-Fiente, der Kothjäger. (V.Coprotheres)	-35
11	Le Chaugoun, der Schohgun. (Vultur indus)	-40
12	Le Chincou, der Schinkuh. (Vultur sinensis)	-42
13	Le Roi des Vautours, der Geyerkönig. (Vultur Papa L.)	-48
14	L'Ourigourap, der Urigurap. (Vultur Hierax)	-50

Von den Bussarten

15	Le Bacha, der Bascha. (Falco Bassus)	-55
16	Le Rounoir, der Rothschwarze. (F.Rufofuscus)	-59
17	Le Rougre, der Rothgraue. (F.Rufocanus)	-62
18	La Buse gantée, der Stiefel-Bussart. (Falco Ocreatus)	-63

Two of the names given by Forster, nos. 10 and 16, are used today being the first validly published (Clancey 1980). Richmond (1919) additionally would have adopted the names of nos. 15 and 17.

The names given to the first 7 species are uninominal. The question, not raised by Richmond, is whether these are to be interpreted as genus names without species indication; or species names within an unstated genus like *Falco*; or indications outside the system of binominal nomenclature. The problem cannot be solved satisfactorily, because (1) there is no internal evidence about Forster's intentions, and (2) this work was not consulted for taxonomic purposes until the paper by Richmond (1919). Considering the entire work by Forster, one can only conclude that he was a most ardent and faithful follower of the Linnaean system of classification. Whenever he mentioned a certain animal either in his own original work or in one of his many translations, he invariably tried to attach a binominal name. For that reason, I suggest that the names used for the first seven species were supposed to be allowed within that system. If one would judge otherwise, Forster would not have applied the Principle of Binominal nomenclature consistently, in which case the whole book would be unavailable for nomenclatorial purposes (ICZN 1985, article 11c). If Forster intended these seven names to indicate as many new genera, for some reason published without associated nominal species, those would be available today. The fact that this in some cases would upset present usage, cannot be used against it. However, because there is no evidence what Forster intended, we are not obliged to follow that unfortunate direction. It appears most appropriate to treat these seven names as proposed in the species-group without the obligatory combination with a generic name. This makes them unavailable for purposes of nomenclature (ICZN 1985, article 11(h)iii), but does not affect the standing of the names given to species 9 to 18.

(b) *J.M.Bechstein's German translation*

Franz le Vaillant's Naturgeschichte der Afrikanischen Vögel. Aus dem Französischen übersetzt und mit Anmerkungen versehen von Johann Matthäus Bechstein. Erster Band. Nürnberg, J.G.Monath und J.F.Kussler. 1802. 1 vol. 4to. Pp. [1], i-x, [1-2], 11-210, pls. 1-49.

This translation by J.M.Bechstein (1757-1822) was discontinued after the first volume. Anker (1974:157) said it appeared in 6 parts with dates recorded below. His date of the 6th issue was 1800. This does not explain the date 1802 on the title page, nor that 2 copies are known which break off at plate 36. Possibly, the first six installments were issued between 1797 and 1800 with 6 plates each as in the original French editions (pls. 1-36). Then there might have been two further installments published in 1801 and 1802 with the last 13 plates. Alternatively, the 1802 edition might have been a reprint or a new edition with new title. The dates may be given as follows for 8 installments with 6 plates each, but 7 in the last issue: (1) 1797, (2) 1798, (3) 1799, (4) 1799, (5) 1800, (6) 1800, (7) 1801-1802, (8) 1802.

Ogilvie (1962:70) recorded a small 4to edition with x, 168 pp. and 36 illustrations with the date '1797' on the title-page. A similar copy is in the University Library of Uppsala. A complete copy with the title as stated above is in the library of the British Museum (Natural History), London. The plates, either plain or coloured, were engraved by J.Nussbiegel.

This translation was without additional names. Sherborn (1922:xxxiv) stated it contained 'n.gen', new genera, but I am unable to locate those. As noted by Richmond (1919:546), only one footnote is nomenclatorally interesting. While describing the 'Buse gantée' of plate 18, Bechstein remarked in a note on the similarity to *Falco lagopus* L.: 'Es ist gar keinen Zweifel unterworfen, daß es nicht derselbe Vogel sey, und man wird ohne zu irren, ihn den lateinischen Namen: *Falco lagopus Varietas africana* geben können' (Bechstein 1799:96). The

7. The only known copy is in the Smithsonian Institution, Washington, U.S.A. (Richmond collection). My notes were prepared after a full photocopy of the book which they kindly provided.

name is available and a junior synonym of *Hieraaetus pennatus* (Gmelin, 1788). If a date has to be cited, the part including this plate probably appeared in 1799.

(c) *C.G.C.Reinwardt's Dutch translation*

Natuurlijke Historie der Africaansche vogelen, door François Levaillant. Uit het Fransch vertaalt. [1ste] Uitgave. Te Amsterdam, bij J.C.Sepp en Zoon. Gedrukt ter boek- en konstplaatdrukkerije van H.O.Brouwer, op de Heerenmarkt, No.5 te Amsterdam. 1 vol. 4to. [1811] pp. [1], i-vi, 1-42, pls. 1-6.

The translation was made by Caspar Georg Carl Reinwardt (1773-1854). It is extremely rare. Although a Dutch production, it has not been possible to trace a copy in any library in Holland. The only known copy extant is in the Bibliothèque Nationale, Paris, as described by Ogilvie (1962:69). The edition is mentioned by Arrenberg (1832:614) with the date 1811, with coloured plates, price Hfl.10,50. It has been said to have appeared in 8 parts with 48 plates but this must be a confusion with Bechstein's German edition. Only 30 copies were printed (*Bibliographie de l'Empire Français*, I, 1811-1812, p.429). The plates have the bird names in French with stated provenance from the Imprimerie Langlois. Reinwardt added scientific names of the six birds described, as follows:

1	De Grijp-Arend,	Falco bellicosus, Lath.	pp.1-10
2	De Kuif-Arend,	Falco occipitalis, Lath.	11-15
3	De Wit-Arend,	Falco albescens, Lath.	16-22
4	De Roep-Arend,	Falco Vocifer, Lath.	23-30
5	De Blagger,	Falco blagrus, Lath.	31-38
6	De Kaffer,	Falco vulturinus, Daud.	39-42

12.4.6 *Five Commentators*

(a) *Daudin's Traité élementaire (1800)*

François Marie Daudin (1774-1804) tried to write the complete ornithological handbook, called the *Traité élementaire et complèt d'Ornithologie* published in 2 volumes in Paris, 1800 - an VII. He found many previously unknown birds in Levaillant's *Oiseaux d'Afrique*. He often cited that book, with the last published plate being no.97 (on II, p.295). This seems to show that Daudin's second volume appeared in 1801, as Levaillant's plates 73-90 are supposed to have been issued in 1801. It must be added immediately, however, that the size and contents of the issues of Levaillant's *Oiseaux d'Afrique* and their dates are insufficiently known to be used for any such conclusions. Daudin gave binominal names to Levaillant's species in the genera *Vultur* (pls. 9-14), *Secretarius* (pl. 25), *Falco* (pls. 1-8, 15-24, 26-37), *Strix* (pls. 38-46), *Corvus* (pls. 50-60), *Sturnus* (pls. 83-92), *Gracula* (pls. 93-95) and *Buphaga* (pl. 97). Of these, 41 species were named with Levaillant stated as the only reference.

(b) *Sonnini's Histoire Naturelle (1804-1805)*

In the early years of the 19th century, C.N.S.Sonnini de Manoncourt (1751-1812) edited a new edition of Buffon's *Histoire Naturelle*. He added, especially in the first volumes, a large number of birds exclusively following the *Oiseaux d'Afrique*. The names in French are often the same, the information generally much abbreviated. These short articles were signed either by Sonnini or by J.J.Virey his collaborator. The work does not contain any binominal names. The last plate of Levaillant cited here is no.117 published between 1801 and 1805. The volumes are of little interest, except to show how readily and uncritically Levaillant's descriptions were used and cited.

(c) *Vieillot's Nouveau Dictionnaire (1816-1819)*

The fullest integration of Levaillant's work with the Linnaean system of nomenclature was by Louis Jean Pierre Vieillot (1748-1831). Almost all the birds described by Levaillant are found in the ornithological entries of the second edition of the *Nouveau Dictionnaire d'Histoire Naturelle* published between 1816 and 1819 (being absent from the first edition of 1802-1804, cf. Osgood 1914). A few of these entries were signed 'S' for Sonnini, but most were written by Vieillot who is credited in the 'Liste Alphabétique des noms des Auteurs' in the front of the volumes. The few available biographical sketches on Vieillot were summarized by Oehser (1948). A few years after the appearance of the *Nouveau Dictionnaire*, Vieillot combined his contributions to that work in the *Tableau encyclopédique et méthodique* (1820-1823) with few appropriate additions or corrections.

Vieillot's compilation is important, not for its novelties, but because he named many of Levaillant's birds for the first time. He referred to practically all plates in the *Oiseaux d'Afrique*, with a few exceptions, probably when the birds were well known otherwise. Only a few birds described by Levaillant could not be found as such in Vieillot's work, but they could have been overlooked because the entries are scattered throughout the volumes according to the French generic names.

(d) *The Encyclopaedia Londinensis (1795-1829)*

The first reference to the *Encyclopaedia Londinensis* and its importance to ornithology was made by Cassin (1867), whose rather short introduction was reliable in most details. The title of the work in full:

Encyclopaedia Londinensis; or, Universal Dictionary of Arts, Sciences, and Literature; comprehending, under the general alphabetical arrangement, all the words and substances of every kind of dictionary extant in the English language ... compiled, digested and arranged, by John Wilkes, of Milland House, in the country of Sussex, Esq.; assisted by eminent scholars of the English, Scotch, and Irish universities. London, printed for the proprietor.

There were 24 volumes 4to pulished between 1795 and 1829. It appeared in 1678 parts, weekly at first, but more irregularly from vol.20. The parts were not dated, but it is assumed that the text corresponds with the plates, which usually bear a date (Sherborn 1922,I:xlix). Little is known about John Wilkes who is said to be editor on all title-pages, except his residence and his death in 1811. The *Encyclopaedia* does not list its contributors and there is no evidence who was responsible for the ornithological entries. Lacking these details, the notes about birds were usually ascribed to John Wilkes (Cassin 1867, Sherborn 1922). The zoological entries in the beginning of the series are more interesting than in later volumes where the articles become shorter and less informative. Brunet (1861,II:978) remarked that the work 'a été si longtemps sous presse, que les premiers volumes se sont trouvé déjà fort arrières lorsque le dernier a paru; aussi le prix, qui était ordinairement pour chaque vol. de 2 liv. 12 sh. 6 d. et de 3 liv. 13 sh. avec fig.color., s'est-il beaucoup réduit.'

The reason to mention the *Encyclopaedia Londinensis* at present lies in the fact that Levaillant's bird descriptions were repeated, at least in the earlier volumes, always with the addi-

tion of a binominal name. The article 'Ornithology' mentioned that 'M.le Vaillant' was 'eminently distinguished by the ardour and acuteness with which he has prosecuted his ornithological researches, and has availed himself with laudable diligence of his rare opportunities of collecting accurate details relative to every species which he undertakes to illustrate' (Wilkes 1820,XVII:765). For that reason, the editor continued, 'we have availed ourselves very considerably of these works in the course of our ornithological articles: not, however, without frequently expressing a wish that the author had been more liberal of his synonyms and references, and had treated systematic writers with more respect' (Wilkes, l.c.).

Not all 277 species illustrated in the *Oiseaux d'Afrique* again appear in the *Encyclopaedia Londinensis*. The reason clearly must be that both works were published in parts during the same period. Levaillant treated the birds in systematic order, Wilkes in an alphabetical order according to genera. If Levaillant described a bird in one of the later volumes which should be classified in a genus starting with a letter in the beginning of the alphabet, Wilkes was no longer able to incorporate the species.

The *Encyclopaedia Londinensis* provided binominal names to all birds described. In several cases, these were earlier than those proposed by Vieillot and others. All these commentators including Wilkes and Vieillot worked in similar ways: They uncritically gave names to all of Levaillant's birds. There is, therefore, no reason to reject any of the names proposed by Wilkes. That suggestion has never been advocated, but Wilkes's names have never been used, with very few exceptions.

Cassin (1867) agreed that all the names by Wilkes are available, and often earlier than those in current use. Sherborn (1922) included the names in his list and did nowhere suggest that they would not be available. The paper by Cassin was reviewed by Mathews & Iredale (1921:143) quoting just two examples: *Motacilla fimbriata* Wilkes, 1817, the Australian bird known by the earlier *Stipiturus malachurus* (Shaw, 1798), and *Motacilla tractrac* Wilkes, 1817 which is earlier than *Oenanthe cinerea* Vieillot, 1818. This paper was read and the latter name duly entered zoological nomenclature; the name *Cercomela tractrac* (Wilkes, 1817) is now found in checklists, like Clancey (1980:180).

(e) *A Genuine and Universal System (1794-1810)*

This work of 14 volumes may be mentioned here because it presented an English translation of many birds first described by Levaillant. It did not include binominal names. The book was briefly described by Cassin (1867) and listed by Soulsby (1933, no.129). The title was rather long:

A Genuine and Universal System of Natural History; comprising the three Kingdoms of Animals, Vegetables, and Minerals, arranged under their respective Classes, Orders, Genera, and Species. By the late Sir Charles Linnaeus ... Improved, corrected and enlarged by J.Frid.Gmelin ... Faithfully translated, and rendered more complete by the addition of Vaillant's beautiful Birds of Africa; the superb Fish of Mark Eliezer Bloch; the Amphibious Animals, Reptiles, Insects, &c. in the costly works of Albertus Seba, Merian, Fabricius, Knorr, &c.; the elegant improvements of the Compte de Buffon, and the more modern Discoveries of the British Navigators in the South Pacific Ocean, New Holland, New South Wales, China, Cochin-China, &c. ... Methodically incorporated and arranged by the Editors of the Encyclopaedia Londinensis. London, printed for the Proprietor, 14 vols. 8vo. (1794-1810).

The birds of Levaillant appeared in volume 8. Apparently the set was published in 198 (monthly) installments; the plates range in date between June 1794 and August 1809. The dependence on the *Encyclopaedia Londinensis* is noted on the title-page. Not all of Levaillant's birds treated in the *Oiseaux d'Afrique* are translated, but certainly the majority of them, up to the original no.286. Birds present in the book by Levaillant and not found here total about 60 with the deletions becoming more numerous as one advances in the *Oiseaux d'Afrique*.

12.4.7 *The contents of the Oiseaux d'Afrique*

All the birds described by Levaillant in the 6 volumes of the *Oiseaux d'Afrique* are mentioned below. It is necessary to review all species, because some of Levaillant's statements and plates make it impossible to identify the South African birds easily. The species are usually referred to by the number of the plate, which is followed here, because the pagination differs in the various editions. In each case, the following details are given.

The first line of each entry starts with the numbers of the plate, or plates, or figures depicting that particular species according to Levaillant's description. This is followed within brackets by the volume number, page numbers of the description, and the supposed date of publication of that plate. The page numbers follow the folio edition, which differ from the quarto editions. The dates are those given and explained in 12.4.1. The same line gives the French name of the bird according to Levaillant.

The entries are all written in the same order of contents. They start with the current scientific name of the bird, but only if the species can be recognised as South African. This is followed by Levaillant's indications about the distribution of the bird. If he mentioned to have seen a specimen in a certain collection in Europe, this is mentioned here. Details about the most important collectors can be found in 12.15-12.23, i.e. Jacob Temminck and his son C.J.Temminck, Joan Raye, L.F.Holthuysen, Louis Dufresne, etc. Names described on the basis of the plate or description of the *Oiseaux d'Afrique* are given with the original reference. At the end there is some remark about the plate; if the artists are mentioned, their names are given. The identifications of the sexes of the birds depicted follow the indications by Levaillant on the plates, and may not be correct. If a watercolour with a very similar depiction is known, this is recorded here (see 12.6).

The localities mentioned by Levaillant in the *Oiseaux d'Afrique* usually correspond with those in the travel accounts. In these cases, the places are identified by a number in brackets following the name of the river or region. These numbers refer to the localities identified in the analysis of the expeditions in 12.14. I have here only identified the South African birds. All birds were named, as far as possible, by Gray (1849 in appendix) and by Sundevall (1857).

For ease of reference, the birds are divided in three categories. This is indicated together with the plate number at the beginning of each entry.

1. No special indication: birds about which Levaillant stated the occurrence in South Africa, and which in fact live there.
2. * A single asterix in front of the plate number: birds about which Levaillant said that they came from regions outside South Africa.
3. ** Two asterixes in front of the plate number: birds about which Levaillant said that they were found in South Africa

(sometimes in combination with other places), and which do not exist there. This category includes some species which cannot be recognised from the plate.

HISTOIRE NATURELLE DES OISEAUX D'AFRIQUE

Volume I, Plates 1-49, 1796-1799

1 (I:1-5, 1796) Le Griffard.
Polemaetus bellicosus. Levaillant recorded it in Great Namaqualand on the north bank of the Orange River. The description was the basis of *Falco bellicosus* Daudin (1800, II:38), *Falco griffardus* Wilkes (1805,II:173, pl.2) and *Falco armiger* Shaw (1809,VII(1):57). Plate drawn by Reinold, engraved by Fessard; compare UBL 201 which is in reverse.

2 (I:6-7, 1796) Le Huppard.
Lophaetus occipitalis. It was found in the country of the Auteniquoi (12) and in Caffraria or eastern Cape Province (27). The description was the basis of *Falco occipitalis* Daudin (1800,II:40) and *Falco capillamentus* Wilkes (1805,VII:179). Plate drawn by Reinold, engraved by Fessard. Compare UBL 99 and KB 41 which are reversed.

3 (I:8-10, 1796) Le Blanchard.
Stephanoaetus coronatus. It was found in the country of the Auteniquoi (12). The description was the basis of *Falco albescens* Daudin (1800,II:45) and *Falco longicaudus* Wilkes (1805,VII:180, pl.4). The plate drawn by Reinold, engraved by Fessard. Drawings of the same specimen as the plate are shown on RMNH 2 and RPK 4.

4 (I:11-14, 1796) Le Vocifer.
Haliaeetus vocifer. Levaillant did not mention any precise localities but mentioned its occurrence near the mouths of large rivers and its absence in the interior. The description was the basis of *Falco vocifer* Daudin (1800,II:65) and *Falco stridens* Wilkes (1805,VII:178, pl.4). Plate drawn by Reinold, engraved by Fessard. The same depiction is found on UBL 37 and KB 13 (the male), while UBL 38 and KB 14 show a lighter coloured female.

**5 (I,15-17, 1796) Le Blagre.
Levaillant said that he found it along the rivers and lakes in the drier interior parts. The bird has not been seen again in South Africa and the plate depicted an Asian species (Cuvier 1816:316, Sundevall 1857:23). Temminck (1821,pl.49), however, recorded that Levaillant had brought home 'deux sujets de cette espèce, ils ont été totalement gâtés par la graisse qui a imbibé leur plumage.' Maybe they could not be drawn nicely and Levaillant had substituted a similar specimen. The description was the basis of *Falco blagrus* Daudin (1800,II:70). Plate drawn by Reinold, engraved by Fessard. Compare UBL 68 which is in reverse.

6 (I:18-19, 1796) Le Caffre.
[*Aquila verreauxii*(?)] Levaillant had seen this black eagle rarely in Caffraria (27). He saw only 5 specimens, of which he shot two. The identity of the bird on the plate has caused much discussion. The only eagle in South Africa with this black colour is *Aquila verreauxii* Lesson, 1830. A.Smith (1833:45, 1834:255) accepted that the plate depicted that species. This was not generally followed. Temminck (1820:11) suggested that it was a *Gypaetus*, but added (1820-39, pl.13) that it had not been seen since Levaillant left the Cape. Des Murs (1848) commented on this excessive rarity and quoted a letter from H.Schlegel to the effect that the bird was not present in the RMNH and that 'M.Temminck me dit même que Le Vaillant n'a pas rapporté cet oiseau de ses voyages, et que la figure qu'il en a donnée dans Les Oiseaux d'Afrique, a été fait de memoire.' Because *A.verreauxii* could not be considered rare, having been encountered commonly by Verreaux and Andrew Smith, Des Murs suggested that it could not be the same as the 'Caffre.' It is likely, when all is considered, that Levaillant described the black eagle as his 'Caffre' but the bird on the plate cannot be recognised as such. The plate was the basis of *Falco vulturinus* Daudin (1800,II:53), and *Falco caffre* Wilkes (1805,VII:173). Considering the incertainties connected with this plate and description, it is best to continue to treat these names as indeterminable. The plate was drawn by Reinold, engraved by Fessard. Compare UBL 67 in reverse.

7,8 (I:20-22, 1796-97) Le Bateleur.
Terathopius ecaudatus. Levaillant saw many specimens in the country of the Auteniquoi (12), on the Keurbooms River near Plettenberg Bay (14) and further eastwards. The plate was the basis of *Falco ecaudatus* Daudin (1800,II:54) and *Falco remex* Wilkes (1805,VII:174, pl.2). Both plates drawn by Reinold, engraved by Fessard. Compare UBL 28 and KB 7 which are like pl.7 in reverse.

9 (I:23-27, 1796-97) L'Oricou.
Torgos tracheliotos. This bird occurred in Great Namaqualand north of the Orange River. It was called 'swarte-aas-vogel' or 'stront-jager' by the Dutch farmers and 'ghaip' by the Namaquas. The description was the basis of *Vultur auricularis* Daudin (1800,II:10). Plate drawn by Reinold, engraved by Fessard. Compare UBL 234 and RMNH 4 with the same bird in reverse.

10 (I:28-31, 1796-97) Le Chasse-Fiente.
Gyps coprotheres. Levaillant saw this vulture in the mountains between Cape Town and False Bay, as well as in other places near the ocean. The description was the basis of *Vultur coprotheres* J.R.Forster (1798:xvi, 35), *Vultur kolbii* Daudin (1800,II:15), *Vultur vulgaris* Vieillot (1819,XXXV:262) and *Vultur chassefiente* Ruppel (1830:382). Plate drawn by Reinold, engraved by Fessard. Compare UBL 5 and KB 2 which are in reverse.

*11 (I:32-33, 1796-97) Le Chaugoun.
Levaillant received a specimen from Bengal. According to Temminck (1820,pl.26) and Schlegel (1862d), his specimen was preserved in the RMNH. The description was the basis of *Vultur indus* J.R.Forster (1798:xvi,40) and *Vultur chaugoun* Daudin (1800,II:14). Plate drawn by Reinold, engraved by Fessard.

*12 (I:34-37, 1796-97) Le Chincou.
Levaillant saw this bird alive in the aviary of 'M.Ameshof' where he studied and painted it. The owner was Arnoldus Ameshoff (1749-1819), a merchant who had a small collection of animals on his country residence 'Amstellust' (Smit 1986:6). Temminck (1827, pl.426) saw the same bird which had come from China. The description was the basis of *Vultur sinensis* J.R.Forster (1798:xvi, 42) and *Vultur chincou* Daudin (1800,II:12). Plate drawn by Reinold, engraved by Fessard.

*13 (I:38-39, 1796-97) Le Roi des Vautours.
Levaillant had a specimen from 'Cayenne'. Plate drawn by Reinold, engraved by Fessard, with the name as 'Le Roi des Vautours, varié.'

14 (I:40-43, 1796-97) L'Ourigourap.
Neophron percnopterus. The bird had earlier been described by Brisson (1760,I:466) and figured by Buffon (1770,I,pl.429) as 'Petit Vautour.' Levaillant compared Buffon's specimen in the Paris museum with his own and he found that they were similar. He had observed the species in the dry places of the Karroo (36) and the Camdeboo (35), and more seldom in the country of the Auteniquoi (12) and near Cape Town. It was supposed to be much more common in Little Namaqualand, on the Orange River and in Great Namaqualand. The Namaquas called it 'Ourigourap.' The description was the basis of *Vultur hierax* J.R.Forster (1798:xvi,50) and *Vultur albus* Daudin (1800,II:21). Plate drawn by Reinold, engraved by Fessard. Compare UBL 151 and UBL 165 showing the same bird, in reverse, with different backgrounds.

**15 (I:44-46, 1796-97) Le Bacha.
Levaillant claimed that he saw only 7 specimens, of which he killed two pairs, far in Great Namaqualand. It has never been seen in Africa (Kaup 1847:262, Sundevall 1857:25, Layard 1867). The description was the basis of *Falco bassus* J.R.Forster (1798:xvi, 55) and *Falco bacha* Daudin (1800,II:43). Plate drawn by Reinold, engraved by Fessard. Compare UBL 185, the same bird in reverse.

16 (I:47-48, 1796-97) Le Rounoir.
Buteo rufofuscus. The bird was seen everywhere near human habitations. The description was the basis of *Falco rufofuscus* J.R.Forster (1798:xvi, 59), *Falco jakal* Daudin (1800,II:161) and *Falco rutilo-niger* Wilkes (1805,VII:183). Plate drawn by Reinold, engraved by Fessard.

**17 (I:49-50, 1796-97) Le Rougri.
Levaillant stated that this species was very rare and only occurred in the most arid and deserted places. The description was the basis of *Falco rufocanus* J.R.Forster (1798:xvi,62), *Falco desertorum* Daudin (1800,II:162) and *Falco rutilo-griseus* Wilkes (1805,VII:183). Daudin's name was commonly used in the 19th century (e.g. A.Smith 1834:287, Sundevall, 1857:25) for the bird now known as *Buteo buteo vulpinus* (Gloger, 1833). The bird depicted on this plate is now considered indeterminable (Brooke 1974:60) and the associated names cannot be used. Plate drawn by Reinold, engraved by Fessard.

**18 (I:51-52, 1796-97) La Buse Gantée.
Levaillant stated the occurrence of this bird in the country of the Auteniquoi (12). The plate probably depicts the European *Buteo lagopus* which does not live in South Africa. The description was the basis of *Falco ocreatus* J.R.Forster (1798:xvi, 18), *Falco lagopus* var.*africana* Bechstein (1799:96), *Falco plumipes* Daudin (1800,II:163) and *Falco manicatus* Wilkes (1805,VII:184, pl.6). Plate drawn by Reinold, engraved by Fessard.

19 (I:53-54, 1798) Le Tachard.
Pernis apivorus. Levaillant saw only one specimen during his travels. It was shot by the Hottentot Klaas who accompanied him, on the Lion River in Great Namaqualand (62). The description was the basis of *Falco tachardus* Daudin (1800,II:164) and *Falco maculatus* Wilkes (1805,VII:184). Many 19th century authors like Sundevall (1857:25) recognised it as a separate species, but it was identified with *Pernis apivorus* by Gray (1849), Des Murs (1862) and Layard (1867). The .honey buzzard is not known from southern Namibia. Levaillant may either have shot a stray specimen, or figured the wrong species. Plate drawn by Reinold, engraved by Fessard.

*20 (I:55, 1798) Le Buserai.
A bird from 'Cayenne'. The description was the basis of *Falco busarellus* Daudin (1800,II:168) and *Falco buserai* Wilkes (1805,VII:185). Plate drawn by Reinold, engraved by Fessard.

*21 (I:56-57, 1798) Le Buson.
A bird from 'Cayenne'. The description was the basis of *Falco buson* Daudon (1800,II:168). Plate drawn by Reinold, engraved by Fessard. The name of the bird is spelled 'Buzon' on the plate.

22 (I:58-62, 1798) Le Parasite.
Milvus migrans parasitus. Levaillant saw this 'kuykendief' wherever he travelled, especially in Caffraria (27) and in Great Namaqualand (63). The description was the basis of *Falco parasitus* Daudin (1800,II:150) and *Falco parasiticus* Latham (1801:iv). Plate drawn by Reinold, engraved by Fessard. Compare UBL 186 of the same bird in reverse.

23 (I:63-65, 1798) Le Grenouillard.
Circus ranivorus. Levaillant saw this bird, locally called 'kikvorsvanger', everywhere in the southern and eastern Cape Province, especially near the Duiwenhoks River (8), the Gourits River (9) and the Brak River (11) and in the country of the Auteniquoi (12). The description was the basis of *Falco ranivorus* Daudin (1800,II:170) and *Falco ranavorans* Wilkes (1805,VII:186). Plate drawn by Reinold, engraved by Fessard.

In the text to plate 23, Levaillant mentioned that he had seen another kind of harrier ('busard') flying above the water while passing the Langkloof near the Krom River. He was unable to shoot it. The bird was all black with a white tailbone. One could suspect that this was a specimen of *Circus maurus*. Levaillant was mentioned in the first description of the species, but with a different story, by Temminck (1828, pl.461): 'Ce busard, qui Le Vaillant vit plusieurs fois dans ses excursions le long des côtes occidentales de la partie méridional de l'Afrique n'a point été rapporté ni décrit par lui.'

24 (I:66-67, 1798) Le Tachiro.
Accipiter tachiro. Levaillant saw this bird first in the country of the Auteniquoi (12) and later at the Keurbooms River near Plettenberg Bay (14). The specimen on the plate probably was a young one. The description was the basis of *Falco tachiro* Daudin (1800,II:90). Plate drawn by Reinold, engraved by Fessard. Compare UBL 29 of the same bird in reverse.

25 (I:68-74, 1798) Le Mangeur des Serpens.
Sagittarius serpentarius. The bird was seen in the Zwartland (44) and eastwards to Caffraria. It was less common on the west coast. The description was the basis of *Secretarius reptilivorus* Daudin (1800,II:30). Plate drawn by Reinold, engraved by Fessard, with the name spelled 'Mangeur de Serpents'. Compare UBL 184 with minor differences.

*26 (I:75-76, 1798) L'Autour Huppé.
A bird from Cayenne. Levaillant himself had a specimen, others were owned by the Paris Museum and by L.F.Holthuysen, Mauduyt de la Varenne and Gaillard (Laissus 1964). The description was the basis of *Falco ornatus* Daudin (1800,II:77) and *Falco superbus* Shaw (1809,VII(1):64). Plate drawn by Reinold, engraved by Fessard; compare RMNH 13 depicting the head and leg of this species.

27 (I:77-79, 1798) Le Faucon Chanteur.
Melierax canorus. Levaillant saw it in Caffraria (27), the Karroo (36) and the Camdeboo (35). The description was the basis of *Falco musicus* Daudin (1800,II:116), *Falco cantor* Wilkes (1805,VII:92) and *Astur cantans* Kaup (1847:192). Plate drawn by Reinold, engraved by Fessard. Compare UBL 31 of the same bird in reverse.

**28 (I:80-81, 1798) Le Faucon Huppé.
Levaillant saw the bird in South Africa, but his text did not specify a locality. On the watercolour UBL 69 it was said to occur in the 'Pays des Caffres'. The bird cannot be recognised. Kaup (1847:76, 1851) and Sundevall (1857:26) indicated that it was a bad representation of *Falco peregrinus minor*. The peregrine, however, does not have a crest and it must have been added to the specimen figured by Levaillant. The description was the basis of *Falco frontalis* Daudin (1800,II:28) and *Falco galericulatus* Shaw (1809,VII(1):149). Plate drawn by Reinold, engraved by Fessard. Compare UBL 69 of the same bird in reverse.

**29 (I:82-83, 1798) Le Faucon à Culotte Noire.
Levaillant saw and killed this species only once in Great Namaqualand. The people assured him that it was more common near the Sneeuwbergen where it was called 'klyne-berg-haan'. The bird on the plate was never seen again in South Africa (A.Smith 1838, pl.1). Several suggestions about the identity of the bird were advanced by Kaup (1847:361) and Sundevall (1857:26). The description was the basis of *Falco tibialis* Daudin (1800,II:120) and *Falco africanus* Wilkes (1805,VII:193). Plate drawn by Reinold, engraved by Fessard.

*30 (I:84, 1798) Le Chicquera.
Levaillant saw one specimen brought from Bengal in the Paris museum. It also occurs in South Africa (*Falco chicquera*). The description was the basis of *Falco chicquera* Daudin (1800,II:121). Plate drawn by Reinold, engraved by Fessard. Compare RMNH 7 of the same bird in reverse.

**31 (I:85-86, 1798) L'Acoli.
Levaillant said that he encountered the bird on many occasions, in Zwartland (44), Rooyezand, the 24-rivers district (45), and in the east near the Swartkops River (18) and Sundays River (20). The people called it 'witte-valk' or 'leeuwerk-vanger'. The bird on the plate cannot be recognised. Both Schlegel (1862e:5) and Sundevall (1857:27) considered it to be manufactured. The description was the basis of *Falco acoli* Daudin (1800,II:176) and *Falco acolius* Wilkes (1805,VII:180). Plate drawn by Reinold, no engraver mentioned.

*32 (I:87-88, 1798) Le Tchoug.
Levaillant knew this species from Bengal. Plate drawn by Reinold, engraved by Fessard. Compare RMNH 15, 16 of the same species.

33 (I:89-91, 1798) Le Gabar.
Micronisus gabar. Levaillant saw it near the Swartkops River (18) and the Sundays River (20) and later in other localities in the east. The description was the basis of *Falco gabar* Daudin (1800,II:87). Plate drawn by Reinold, engraved by Fessard. Compare UBL 150 (male) of the same bird in reverse.

34 (I:92-94, 1798) Le Minulle.

Accipiter minullus. It was first seen near the Gamtoos River (16) where a pair was shot. Later another five specimens were collected between the Gamtoos River and Caffraria. The description was the basis of *Falco minullus* Daudin (1800,II:88). Plate of 'Le Minule' drawn by Reinold, engraved by Fessard.

35 (I:95-96, 1798) Le Montagnard.

Falco tinnunculus rupicolus. The bird was common all over the regions traversed in South Africa. The description was the basis of *Falco rupicolus* Daudin (1800,II:125) and *Falco capensis* Shaw (1809,VII(1):192). Plate drawn by Reinold, engraved by Langlois. Compare UBL 149 of the same bird in reverse.

36, 37 (I:97-99, 1798-99) Le Blac.

Elanus caeruleus. Levaillant encountered it in the south and east of the Cape Province, between the Duiwenhoks River (8) and Caffraria (27) including the vicinity of the Swartkops River (18), the Sundays River (20) and in the Camdeboo (35). The description was the basis of *Falco melanopterus* Daudin (1800,II:152). Plates both drawn by Reinold, engraved by Fessard. Plate 36 is an adult, pl.37 a young. Compare UBL 30 and KB 8 of the male depicting pl.36 in reverse.

**38 (I:100-103, 1799) Le Choucou.

Levaillant stated to have seen this bird only in the country of the Auteniquoi (12). As suggested by Sundevall (1857:27), the bird on the plate does not occur in South Africa. It is indeterminable. The description was the basis of *Strix choucou* Daudin (1800,II:186). Plate drawn by Reinold, engraved by Fessard, with the name spelled 'Chou Cou'. Compare UBL 38 of the same bird in reverse.

In relation to all owls treated by Levaillant, it may be mentioned that it is a difficult group of birds. Levaillant may not have collected a sufficient number of specimens to have gained a clear picture of their identities. All the owls in the *Oiseaux d'Afrique* are difficult to identify from his description and plates.

**39 (I:104-105, 1799) Le Choucouhou.

Bubo africanus ? Levaillant saw this owl near the Orange River. It cannot be identified with certainty. Hartlaub (1857) and Sundevall (1857:28) said that the 'Originalexemplar' in the Leiden Museum had been examined by J.Verreaux and was said to belong to *Bubo maculosus* or *Bubo africanus*. The description was the basis of *Strix nusuella* Daudin (1800,II:187). Plate drawn by Reinold, engraved by Fessard, with the name spelled 'Chou Cou Hou'. Compare UBL 187 of the same bird in reverse.

**40 (I:106-107, 1799) Le Grand Duc.

Levaillant found the bird near the Olifants River (49) in the western Cape Province. The description was the basis of *Strix bubo capensis* Daudin (1800,II:208). The application of Daudin's name has been discussed. Roberts (1935b:268) declared it a senior primary homonym of *Strix capensis* A.Smith, 1834, a name given to the grass owl now classified as *Tyto capensis* A.Smith. Considering the confusion, Clancey (1967) requested a formal suppression of Daudin's name. The most interesting comment was by Mees (1967). He showed that Levaillant 'regarded the European, the African and the American *Bubo* all as one species.' Therefore, while Levaillant's plate 40 may depict a European specimen, Daudin's description is referable to the African species. It is also clear that Levaillant did in fact collect at least one specimen of the Cape eagle owl which was depicted on RMNH 19 (figured by Mees 1967, pl.3). Mees selected the specimen on this drawing RMNH 19 (and not that on Levaillant's plate 40) as the lectotype of *Strix bubo capensis* Daudin. The name by Daudin was subsequently suppressed in Opinion 895 of the ICZN (1970). This shows that Levaillant may not have been unreliable as much as he was confused in his classification of some birds. Plate 40 was drawn by Reinold, engraved by Fessard.

In the text to plate 40, Levaillant mentioned four other owls observed in South Africa. None can now be identified with certainty.

(a) Le Moyen Duc (p.107): found all over South Africa. Sundevall (1857:28) suggested that again a European specimen was described.
(b) Le Scops (p.107): found in the Camdeboo (35). It was similar to specimens seen in Paris.
(c) La Chouette (p.108) said to occur near the Cape of Good Hope as well as in France.
(d) L'Effraie (p.109-110) found in the country of the Great Namaquois.

*41 (I:111-112, 1799) Le Huhul.

Levaillant knew three specimens of the striped owl from 'Cayenne': in his own collection and in those of Joan Raye and the painter Desmoulins (not listed by Laissus 1964). The description was the basis of *Strix huhula* Daudin (1800,II:190). Plate drawn by Reinold, engraved by Fessard. RMNH 20 depicts the head and leg of this species.

*42 (I:113, 1799) La Chouette à Collier.

An owl from Suriname. The description was the basis of *Strix torquata* Daudin (1800,II:193). Plate drawn by Reinold, engraved by Fessard.

*43 (I:114, 1799) La Chouette à Aigrette Blanc.

An owl from 'Guyana' of which there were specimens in Levaillant's own collection and those of Gigot d'Orcy and Mauduyt de la Varenne. The description was the basis of *Strix cristata* Daudin (1800,II:207). Plate drawn by Reinold, engraved by Fessard. RMNH 21 and 22 depict the heads of the male and female of this species.

*44 (I:115-116, 1799) La Chouette à Masque Noir.

A bird from 'Cayenne' seen in the collection of C.Gigot d'Orcy. The description was the basis of *Strix personata* Daudin (1800,II:192). Plate drawn by Reinold, engraved by Fessard. RMNH 24 shows the same bird in a different attitude, RMNH 23 the head only.

*45 (I:117, 1799) La Chouette Blanche.

Levaillant saw a specimen in the collection of Joan Raye but he did not know whence it came. The specimen of the European snow owl is recorded in Ray (1827, no.27). The description was the basis of *Strix nivea* Daudin (1800,II:190). Plate drawn by Reinold, engraved by Fessard. RMNH 25 depicts the head and leg of this species.

*46 (I:118, 1799) La Chevechette.

Levaillant had one specimen in his own collection, given to him by Louis Dufresne, while another was owned by Joan Raye. It is a European species of owl. The description was the basis of *Strix pusilla* Daudin (1800,II:205). Plate drawn by Reinold, engraved by Fessard.

**47, 48 (I:119-123, 1799) L'Engoulevent à Queue Fourchue.

Levaillant found this larger nightjar north of the Orange River, not in the 'Pays des Caffres' as stated on *UBL* 59. The specimen shown on the plate does not occur in South Africa. The description was the basis of *Caprimulgus forficatus* Vieillot (1817,X:241). Plates drawn by Reinold, engraved by Fessard. Plate 47 shows the entire bird, pl. 48 the head in two positions and the leg in natural size. UBL 59 and KB 27 are like pl. 47 in reverse.

49 (I:124-127, 1799) L'Engoulevent à Collier.

Caprimulgus pectoralis. Levaillant saw this smaller nightjar near the Gamtoos River (16), in the country of the Auteniquoi (12) and near Plettenberg Bay (14). Plate drawn by Reinold, engraved by Fessard. Compare UBL 34, KB 11 and RMNH 26 with the same bird in reverse.

Volume II, Plates 50-97, 1800-1804.

50 (II:5-7, 1800) Le Corbivau.

Corvus albicollis. Levaillant found this raven common in most parts of the Cape Province, especially in the Zwartland (44) and in the country of the Great Namaquois. The description was the basis of *Corvus capistrum* Wilkes (1802,V:237). Plate drawn by Reinold, engraved by Fessard, with name spelled 'Corbivan.' Compare UBL 152 of the same bird, not reversed.

**51 (II:8-9, 1800) Le Grand Corbeau.

Levaillant claimed to have seen this bird most common in the mountains near Saldanha Bay. The bird has never been seen again in South Africa (Sundevall 1857:29, Layard 1867). The description was the basis of *Corvus magnus* Wilkes (1802,V:237) and *Corvus major* Vieillot (1817, VIII:27). Plate drawn by Reinold, engraved by Fessard.

52 (II:10-11, 1800) La Corneille du Cap.
Corvus capensis. It was common in all parts of the Cape Province through which Levaillant travelled. Plate drawn by Reinold, engraved by Fessard.

53 (II:12-13, 1800) La Corneille à Scapulaire Blanc.
Corvus albus. Levaillant found the pied crow common everywhere he travelled. The description was the basis of *Corvus scapulatus* Daudin (1800,II:232). Plate drawn by Reinold, engraved by Fessard. Compare UBL 212 of the same bird, in reverse, with slightly different background.

**54 (II:14-15, 1800) Le Piapiac.
Levaillant said that he saw the bird only in Great Namaqualand. A specimen of the same species from Senegal was said to be in the collection of Joan Raye in Amsterdam, but it cannot be located in Raye (1827). The bird on the plate has never been seen in South Africa (Sundevall 1857:30). Possibly, Levaillant failed to collect a specimen and assuming it was conspecific with the Senegalese shrike, he felt justified to illustrate the bird in Raye's collection. The description was the basis of *Corvus piapiac* Daudin (1800,II:239). Plate drawn by Reinold, engraved by Fessard.

*55 (II:16, 1800) La Pie à Culotte de Peau.
Levaillant had only seen the specimen in the collection of Joan Raye, purported to be from the South Sea (Raye 1827, no.449: *Pica rufigastra*). The specimen is preserved in the RMNH, Leiden (Sundevall 1857:30). It was manufactured, like many other specimens from the South Sea depicted by Levaillant. The description formed the basis of *Corvus octopennatus* Daudin (1800,II:243), *Corvus ruber* Wilkes (1802,V:245), *Corvus ventralis* Shaw (1809,VII(2):377) and *Pica rufigaster* Vieillot (1818,XVI:128). Plate drawn by Reinold, engraved by Fessard. Compare RMNH 28, the same depiction in reverse.

*56 (II:17-18, 1800) Le Témia.
Levaillant knew only one specimen, in the collection of Jacob Temminck, who received it from Batavia (Java). It was listed in Temminck (1807:41, '*Corvus varians*') with the incorrect locality 'Ceylan'. The description was the basis of *Corvus temia* Daudin (1800,II:244). Plate drawn by Reinold, engraved by Fessard.

*57 (II:19-21, 1800) La Pie Bleue.
Levaillant knew several specimens, all collected in China: two in the collection of Jacob Temminck, and one each in those of Boers, Gygot-d'Orcy, himself, and the national museum in Paris. Plate drawn by Reinold, engraved by Fessard. Compare RMNH 29, the same depiction, in reverse, with a differently drawn branch.

*58 (II:22-23, 1800) La Pie Bleue à Tête Noire.
The specimen depicted came from China, but Levaillant did not mention where he saw it. The bird has never been seen again (Sundevall 1857:30). The description was the basis of *Corvus melanocephalus* Daudin (1800,II:241). Plate drawn by Reinold, engraved by Fessard.

*59 (II:24-25, 1800) La Pie Rousse.
Levaillant found the bird in a shipment from Bengal. Plate drawn by Reinold, engraved by Fessard.

*60 (II:26-27, 1800) La Pie Piegrièsche.
Levaillant saw many specimens, all from 'Cayenne', in the collections of Raye, Holthuysen, Mauduit, Abbé Aubry, Gygot-d'Orcy and his own. The description was the basis of *Corvus collurio* Daudin (1800,II:246), *Lanius picatus* Latham (1801:xvii) and *Corvus lanius* Wilkes (1802,V:245). Plate drawn by Reinold, engraved by Fessard.

61, 62 (II:28-34, 1800) Le Fiscal.
Lanius collaris. A nice description of the fiscal shrike, already known from the Cape of Good Hope before Levaillant's travels. He said that it occurred in Senegal and in the African interior in general. Plates drawn by Reinold, engraved by Perée. Plate 61 shows an adult, pl. 62 a young. Pl. 61 also depicted a grasshopper at bottom right. Compare UBL 72 and 73 of the same birds, in reverse.

**63 (II:35-37, 1800) La Pie-grièche Rousse.
Levaillant recorded this bird from the Cape, Senegal and Europe. He said that he had an adult and a young specimen from South Africa and Temminck (1820b:75) supposed that those were the ones on the plates. However, he probably depicted some from another locality. The species shown has never been seen again in South Africa. Plate drawn by Reinold, engraved by Perée, showing f.1 (above) the male, f.2 the female.

64 (II:38-40, 1800) L'Ecorcheur.
Lanius collurio. Levaillant saw this nonbreeding migrant often in many places, including the area between the Swartkops River (18) and the Sundays River (20), in Little and Great Namaqualand. Plate drawn by Reinold, engraved by Perée, showing f.1 (above) the male, f.2 a young.

*65 (II:41-42, 1800) La Piegrièche Rouge à Plastron Blanc.
Levaillant saw 4 specimens, but he did not say where. The dealers assured him that they came from the South Sea. One such bird reached the RMNH, either from Temminck (absent from the catalogue of 1807) or from Raye (cf. Raye 1827, no.61 *Lanius mystaceus*). This specimen was first studied in 1840 and found to be composed from parts of different birds (Hartlaub 1846:486, Sundevall 1857:31). The description was the basis of *Lanius mystaceus* Latham (1801:xix) and *Lanius picus* Wilkes (1812,XII:217). Plate drawn by Reinold, engraved by Perée. Compare RMNH 30 with the same depiction.

*66 f.1 (II:43-44, 1800) Le Pendeur.
Levaillant had one specimen, bought at the sale of the collection of the Abbé Aubry. Its label stated 'Pie-grièche des Indes.' It has not been seen since and probably was manufactured (Sundevall 1857:31). The description was the basis of *Lanius pendens* Latham (1801:xix) and *Lanius indus* Wilkes (1812,XII:211). Plate drawn by Reinold, engraved by Perée. Figure 1 shows this bird and is the upper one on the plate.

*66 f.2 (II:45-47, 1800) Le Rousseau.
Jacob Temminck received this specimen from Java and gave it to Levaillant. It is a good description of this species, on which Latham (1801:xx) based his *Lanius superciliosus*.

67 (II:48-53, 1800-01) Le Bacbakiri.
Telophorus zeylonus. Levaillant found it common in most parts of South Africa where he travelled. The description was the basis of *Lanius bacbakiri* Shaw (1809,VII(2):319). Plate drawn by Reinold, engraved by Fessard, showing f.1 (below) a male, f.2 a female.

68 (II:54-56, 1800-01) Le Boubou.
Laniarius ferrugineus. Levaillant found it common in the southern Cape Province, but said that it was absent from the regions in the west. Plate drawn by Reinold, engraved by Fessard, showing f.1 (above) a male, f.2 a female.

**69 (II:57-58, 1800-01) Le Gonolek.
Levaillant saw this species only once, in Great Namaqualand, where he collected 2 males and 1 female. In Paris, he probably compared them with Senegalese shrikes collected by Geoffroy de Villeneuve, and considered them conspecific. He depicted one of the West African specimens. Plate drawn by Reinold, engraved by Fessard. Compare UBL 223, the same depiction, in reverse.

70 (II:59-61, 1800-01) Le Tchagra.
Tchagra tchagra. Levaillant saw this bird between the Gamtoos River and Caffraria, and noted its absence from the western regions. Vieillot (1816,III:317) described *Thamnophilus tchagra*, without referring to Levaillant's plate, but the name seems to point at it. Plate drawn by Reinold, engraved by Fessard, showing f.1 (below) a male, f.2 a female.

71 (II:62-64, 1800-01) Le Brubru.
Nilaus afer brubru. Levaillant saw it abundantly near the Orange River. The description was the basis of *Lanius brubru* Latham (1801:xx). Plate drawn by Reinold, engraved by Fessard, showing f.1 (above) a male, f.2 a female. In both UBL 21 and UBL 71, the upper figure is the male of the brubru, while below it is the cubla of plate 72.

72 (II:65-66, 1800-01) Le Cubla.
Dryoscopus cubla. Levaillant encountered the species first in the

country of the Auteniquoi (12) and then from the Duiwenhoks River (8) eastwards. The description was the basis of *Lanius cubla* Latham (1801:xx), a name also recorded in Temminck (1807:16, no.19) and Shaw (1809,VII(2):328). Plate drawn by Reinold, engraved by Fessard, showing f.1 (above) a male, f.2 a female. The illustration of the male is also present on UBL 21 and UBL 71 (see plate 71).

**73 (II:67-74, 1801) La Pie-grièche Bleue.
According to Levaillant, this species was described by Brisson (1760,II:197, pl.XVI f.3) as 'Pie-grièche bleue de Madagascar.' He was therefore aware of its occurrence in Madagascar, but also recorded its presence in Great Namaqualand. It is not known from there. Plate drawn by Reinold, engraved by Fessard, showing f.1 (right) a male, f.2 (above left) a female, and f.3 (below left) a young one. Compare UBL 182 depicting the male and female.

74 (II:75-76, 1801) La Pie-grièche Silencieuse.
Sigelus silens. It was common in most parts of the Cape Province. It was first seen in the country of the Auteniquoi (12). Sundevall (1857:32) included this species among those badly defined, but present in South Africa. The description was the basis of *Lanius silens* Shaw (1809,VII(2):330) and *Lanius taciturnus* Wilkes (1812,XII:214). Plate drawn by Reinold, engraved by Fessard, showing f.1 (above) a male, f.2 a female. Compare UBL 82 with a depiction of the male.

75, 76 f.1 (II:77-80, 1801) L'Oliva.
Telophorus olivaceus. Levaillant found it plentiful near the 'Baie Lagoa' (= Plettenberg Bay) and in many places visited during his first expedition, e.g. near the Gamtoos River (16), Swartkops River (18) and Sundays River (20). He shot over 200 specimens. The description was the basis of *Lanius olivaceus* Shaw (1809,VII(2):330) and *Lanius oliva* Wilkes (1812,XII:214). Both plates drawn by Reinold, engraved by Fessard. Plate 75 f.1 (below) shows a male, f.2 a young male, and pl.76 f.1 (above) shows a female. Compare UBL 70 showing the male and female.

*76 f.2 (II:81, 1801) Le Sourcirou.
Levaillant saw a specimen in a collection of birds sent to him from Guadeloupe in the Lesser Antilles, by an unknown correspondent. Plate as above pl.76 f.1.

*77 f.1 (II:82-83, 1801) Le Tachet.
The species came from 'Cayenne' but Levaillant did not indicate its depository. Plate drawn by Reinold, engraved by Fessard.

*77 f.2 (II:84-85, 1801) Le Rousset.
Levaillant received this bird from 'Cayenne'. Plate as above.

*78 (II:86-87, 1801) La Grande Pie-grièche.
Levaillant bought this specimen from a dealer in Paris, in 1800 or early in 1801. Its provenance was unknown. The description was the basis of *Lanius corvinus* Shaw (1809,VII(2):337). Plate drawn by Reinold, engraved by Fessard.

*79 (II:88-89, 1801) Le Bec-de-Fer.
Levaillant had seen two specimens supposedly from the South Sea, one in his own collection, the other in that of Joan Raye (see Raye 1827, no.168 *Edolius superbus*). It was shown to have been manufactured by Sundevall (1857:32). The description was the basis of *Lanius superbus* Shaw (1809,VII(2):290), *Lanius durus* Wilkes (1813,XII:218), *Sparacta cristata* Vieillot (1819,XXXI:526), while the genus *Sparactes* was described by Illiger (1811:219) with the bec-de-fer as type species. Plate drawn by Reinold, engraved by Perée. Compare RMNH 31 of the same bird, not reversed.

*80, 81 (II:90-91, 1801) Le Geoffroy.
The bird was named after René Geoffroy de Villeneuve, who returned to Paris in 1795 with a collection of Senegalese animals. The description was the basis of *Lanius plumatus* Shaw (1809,VII(2):292) and *Lanius geoffroyi* Wilkes (1813,XII:218), while *Lanius plumatus* Shaw was made the type species of the genus *Prionops* Vieillot (1816,III:145). Both plates drawn by Reinold, engraved by Perée. Plate 80 shows a male, pl.81 a young one.

*82 (II:92-96, 1801) Le Sicrin.
Levaillant knew two specimens said to be from India: one he bought from a dealer in Paris, another was in the collection of W.S.Boers. Schlegel (1844:98) reported the presence of one specimen in the RMNH, Leiden, but its provenance is not clear. This example in Leiden was shown to be an artefact by Schlegel (l.c.) followed by Hartlaub (1846:486), Bonaparte (1850,I:388) and Sundevall (1857:33). The description was the basis of *Corvus crinitus* Daudin (1800,II:253), *Corvus indicus* Wilkes (1802,V:242), *Corvus sexsetaceus* Shaw (1809,VII(2):380) and *Pyrrhocorax* Cuvier (1836:233). The plate drawn by Reinold, engraved by Perée.
In the text to this plate, Levaillant (p.92) commented on the 'Choucas du Cap de Bonne Espérance' described by Brisson (1760,II:30, pl.II f.2) from a specimen in Aubry's collection. He stated that he had never seen it during his travels and suggested that it might have come from another part of Africa.

83, 84 (II:97-102, 1801) Le Roupenne.
Onychognathus morio. Levaillant found this bird common in all regions of South Africa which he traversed. Plates drawn by Reinold, engraved by Perée, showing pl.83 a male and pl.84 a female. Compare UBL 47 of the male.

*85 (II:103-104, 1801) L'Eclatant.
Levaillant only knew the specimen in the collection of Jacob Temminck, recorded by Temminck (1807:86 *Sturnus splendens*). The origin was not known, but it was supposed to have come from Africa. Temminck (l.c.) recorded its source as the islands in the Indian Ocean. Sundevall (1857:33) showed that the specimen was manufactured. The description was the basis of *Sturnus splendens* Daudin (1800,II:309), and *Corvus splendidus* Wilkes (1802,V:241). Plate drawn by Reinold, engraved by Fessard.

*86 (II:105-106, 1801) Le Choucador.
Joan Raye had two specimens (not recorded in Raye 1827), one of which he presented to Levaillant. Its source was unknown. The description was the basis of *Sturnus ornatus* Daudin (1800,II:309) and *Corvus choucador* Wilkes (1802,V:243). Plate drawn by Reinold, engraved by Fessard.

**87 (II:107-110, 1801) Le Vert Doré.
The bird had been described before from Senegal by Brisson (1760,II:313, pl.XXXI f.1) and by Buffon (1777,IV, pl.220). Levaillant thought that he saw the same species far into Great Namaqualand. The specimen depicted probably was a West African one (Sundevall 1857:33). Plate drawn by Reinold, engraved by Fessard.

88 (II:113-114, 1801) Le Spréo.
Spreo bicolor. Levaillant found it common all over the Cape Province. Plate drawn by Reinold, engraved by Fessard.

89 (II:115-118, 1801) Le Nabirôp.
Lamprotornis nitens. Levaillant found this species numerous in different parts of South Africa. First he saw it near the Gamtoos River (16) as recorded in his *Voyage* as 'Etourneau cuivré' (Levaillant 1790,I:124). He continued to observe it further to the east. It was absent from Cape Town. He saw it again in the north-western Cape Province north of the Olifant River. He claimed to have collected no less than 1923 specimens in the course of 6 weeks, of which 94 were prepared and taken back to Europe. The specimen owned by Temminck (cf. Temminck 1807:85,no.144 *Sturnus nabirop*) must have been given by Levaillant. Plate drawn by Reinold, engraved by Fessard. Compare UBL 40, KB 16 and Yale 14 depicting the same bird, in reverse.

**90 (II:119-122, 1801) Le Couïgniop.
Levaillant mentioned that Senegal was the real home of this species. He said that he saw large groups of them migrating north of the Orange River. Maybe he did not collect any and depicted a West African specimen. Plate drawn by Reinold, engraved by Fessard.

91 (II:123-125, 1801-04) Le Nabouroup.
Onychognathus nabouroup. Levaillant saw it in the region north and south of the Orange River, north of the Namero (53). The description was the basis of *Sturnus nabouroup* Daudin (1800,II:308). Plate drawn

by Reinold, engraved by Fessard. Compare UBL 20 showing the same bird in reverse, with probably mistaken locality; UBL 181 is the same species in a different attitude.

*92 (II:126-128, 1801-04) La Cravate Frisée.
The bird came from the South Sea. Levaillant saw a specimen in the collection of C.Gigot-d'Orcy, an inspector of mines, to whom it had been sent to be painted by Woodfort of London. Lysaght (1959:287) gave some details about the early history of this Pacific bird. The description by Levaillant was the basis of *Sturnus crispicollis* Daudin (1800,II:314). Plate drawn by Reinold, engraved by Fessard.

93, 94 (II:131-134, 1801-04) Le Porte-Lambeaux.
Creatophora cinerea. Levaillant first saw the bird near the Gamtoos River (16) and later further towards the east. He noted its absence in the more western regions, where today it does occur. The description was the basis of *Gracula gallinacea* Daudin (1800,II:291). Plates drawn by Reinold, engraved by Fessard. Plate 93 shows f.1 (above) a male, f.2 a female, pl.94 f.1 (above) a young one and f.2 a (white) variety. Compare UBL 124 depicting a male in reverse.

*95 f.1 (II:135-136, 1801-04) Le Martin-Brâme.
Levaillant recognised it as an Indian bird, but stated at the same time that he had shot two males north of the Orange River. It is not known from South Africa. Plate drawn by Reinold, engraved by Fessard.

*95 f.2 (II:137-138, 1801-04) Le Martin Gris-de-Fer.
Another Indian species, which Levaillant claimed to have seen once, on 6 October (1782), near Bruintjeshoogte (21). He shot 2 males and 3 females. It is unknown in South Africa. The description was the basis of *Gracula grisea* Daudin (1800,II:286). Plate as above.

**96 (II:139-144, 1801-04) Le Roselin.
Levaillant said that he had seen this palearctic species during its migration in the N.W. Cape Province. It has not been seen again. Plate drawn by Reinold, engraved by Fessard.

97 (II:145-148, 1801-04) Le Pique-Boeuf.
Buphagus africanus. Levaillant saw it only north of the Orange River. Plate drawn by Reinold, engraved by Perée. It is stated on the plate 'Volume III' but it belongs to this volume II. Compare RMNH 32 of the same bird, in reverse.

Volume III, Plates 98-150, 1801-1805.

98, 99 (III:1-7, 1801-04) Le Grivou.
Turdus olivaceus. Levaillant found it especially abundant near the Cape, mainly in vineyards. Plates drawn by Reinold, engraved by Perée, showing on pl.98 a male and on pl.99 a young; the name is spelled 'Grivron.'

100 (III:8-9, 1801-04) Variété du Grivou.
Turdus olivaceus. This is another specimen of the same species as pls.98-99, with slightly different colours. Levaillant killed this male on the Sundays River (20). Plate drawn by Reinold, engraved by Perée.

101, 102 (III:13-17, 1801-04) Le Rocar.
Monticola rupestris. Levaillant saw the rock thrush in most parts of South Africa where he travelled, but it was especially numerous on Table Mountain. The variety depicted on pl.102 f.2 had a white tail and partially white wings; it was a young male killed on Table Mountain. The description was the basis of *Turdus rupestris* Vieillot (1818,XX:281), *Turdus rupicola* Lichtenstein (1823:38) and *Turdus rocar* Stephens (1826,XIII(2):199). Plates both drawn by Reinold, engraved by Perée. Plate 101 shows f.1 (above) a male and f.2 a female, pl.102 f.1 (above) a young, f.2 a variety. Compare UBL 125 which is like pl.101 in reverse.

103 (III:18-20, 1801-04) L'Espionneur.
Monticola explorator. This bird was found on Table Mountain and on other mountains in the southern and eastern parts of the Cape Province. It was absent from regions in the west. The description was the basis of *Turdus explorator* Vieillot (1818,XX:260). Plate drawn by Reinold, no engraver mentioned.

104 (III:21-22, 1801-04) Le Reclameur.
Cossypha dichroa. Levaillant saw the 'piet-mijn-vrou' in the forests of the Auteniquoi (12) and further to the east near Bruintjeshoogte (21). The description was the basis of *Turdus reclamator* Vieillot (1818,XX:280). No artists mentioned on the plate.

105 (III:23-24, 1801-04) Le Brunet.
Pycnonotus capensis. Levaillant saw it near the Cape and in the Zwartland (44). Plate without mention of artists, showing f.1 (above) a male, f.2 a white variety.

106 f.1 (III:25-26, 1801-04) Le Brunoir.
Pycnonotus nigricans. Levaillant found it mainly north of the Orange River. The description was the basis of *Turdus nigricans* Vieillot (1818,XX:253, in part), *Turdus xanthopygos* Lichtenstein (1819:83) and *Turdus Le Vaillantii* Temminck (1821,pl.71). Plate drawn by Reinold, engraver is not mentioned.

106 f.2 (III:27-28, 1801-04) L'Importun.
Andropadus importunus. This bird was observed between the Duiwenhoks River (8) and 'La Baie Lagoa' or Plettenberg Bay (14). It was especially common in the country of the Auteniquoi (12). The description was the basis of *Turdus importunus* Vieillot (1818,XX:266). Plate as above (106 f.1).

**107 f.1 (III:29-30, 1801-04) Le Curouge.
The bird on the plate is unknown in South Africa. Levaillant said that he saw it, rarely, north of the Orange River. Plate drawn by Reinold, with this species on f.1 (above).

**107 f.2 (III:31, 1801-04) Le Cudor.
Levaillant stated that Klaas, one of his companions, killed a male of this species on the Great Fish River (23). It is not known from South Africa. The description was the basis of *Turdus aurigaster* Vieillot (1818,XX:258). Plate as above (pl.107 f.1).

108 (III:32, 1801-04) Le Merle à Calotte Noir.
Lioptilus nigricapillus. Levaillant killed 3 males and 2 females near Bruintjeshoogte (21). The description was the basis of *Turdus nigricapillus* Vieillot (1818,XX:256). Plate drawn by Reinold, showing f.1 (above) a male, f.2 a female. Compare UBL 54 depicting the male.

**109 (III:33-34, 1801-04) Le Cadran.
Levaillant claimed to have seen this bird north of the Orange River, but is it is unknown in South Africa. Plate drawn by Reinold, showing f.1 (above) a male, f.2 a female.

**110 (III:35, 1801-04) Le Hausse-Col Noir.
Levaillant said that he observed one specimen north of the Orange River. Sundevall (1857:36) and Layard (1867) regarded the bird as doubtful or possibly manufactured. Raye (1827, nos. 683-685) claimed to have 3 specimens of *Picus pectoralis* or 'Pic haussecol noir' which indicates a source outside South Africa. The description was the basis of *Turdus pectoralis* Stephens (1826,XIII(2):200). Plate without mention of the artists; compare UBL 110 of the same bird.

111 (III:36-38, 1801-04) Le Janfréderic.
Cossypha caffra. It was found all over the southern and eastern Cape Province where Levaillant travelled on his first expedition. In the west, he did not find it north of the Kamies Mountains. Plate drawn by Reinold, showing f.1 (above) a male, f.2 a female. Compare UBL 54 f.2 depicting a male.

112 f.1 (III:39-40, 1801-04) Le Jaboteur.
Phyllastrephus terrestris. It was only seen in the country of the Auteniquoi (12). The description was the basis of *Phyllastrephus terrestris* Swainson (1837:270). Plate drawn by Reinold with f.1 of the male of this species. The name of the bird is spelled 'Jabotteur' on the plate.

112 f.2 (III:41-43, 1801-04) Le Flûteur.
Sphenoeacus afer. Levaillant noted it around the Cape, especially at Rondebosch and Constance, and along the eastcoast. North of the Cape it occurred between Verloore Vlei (72) and the Kruys River. The description was the basis of *Turdus tibicen* Vieillot (1818,XX:261). Plate as above.

*113 (III:44, 1801-04) Le Merle Roux à Collier Noir.
Levaillant had seen one specimen in the collection of C.Gigot-d'Orcy. Its origin was unknown, but supposed to be from the Pacific Islands. The description was the basis of *Turdus atricollis* Vieillot (1818,XX:286). Plate drawn by Reinold.

*114 (III:45, 1801-04) Le Merle Tricolor à Longue Queue.
The specimen seen by Levaillant came in the same shipment as that figured on plate 113; the origin was equally unknown. The description was the basis of *Turdus tricolor* Vieillot (1818,XX:291). Plate drawn by Reinold.

*115 (III:46-47, 1801-04) La Cravatte Blanche.
Levaillant only knew one specimen in the collection of Jacob Temminck, which came from Batavia, mentioned by Temminck (1807:89, no.462 Le Merle à cravatte blanche). The description was the basis of *Laniarius albicollis* Vieillot (1817,XIII:299) and *Turdus lunularis* Stephens (1826,XIII(2):200). Plate drawn by Reinold.

*116 (III:48, 1801-04) Le Merle Ecaillé.
Jacob Temminck had the only specimen of this Javanese bird, listed by Temminck (1807:89, no.460 Merle écaillé, Java). The description was the basis of *Turdus squameus* Vieillot (1818,XX:259). Plate drawn by Reinold.

*117 (III:49, 1801-04) Le Merle Jaune Huppé.
Levaillant knew one specimen said to be from the South Sea islands, in the collection of Joan Raye (cf. Raye 1827, no.192 *Turdus melanicterus*). Probably it was manufactured (Sundevall 1857:37). The description was the basis of *Turdus melanicterus* Vieillot (1818,XX:267). Plate drawn by Reinold. Compare RMNH 33 of the same bird.

118 (III:55-56, 1801-04) Le Grivetin.
Erythropygia leucophrys. This robin was seen near the Gamtoos River (16) and later near the Sundays River (20) and the Swartkops River (18). The description was the basis of *Sylvia leucophrys* Vieillot (1817,XI:191), *Motacilla turdus* Wilkes (1817,XVI:91) and *Turdus pipiens* Stephens (1826,XIII(2):202). Plate without mention of the artists, showing f.1 (above) a male, f.2 a female.

**119 (III:57, 1801-04) Le Col d'Or.
The bird cannot be recognised from the plate (Sundevall 1857). Levaillant said that he saw it in the country of the Auteniquoi (12). The description was the basis of *Sylvia auraticollis* Vieillot (1817,XI:175), *Motacilla aurata* Wilkes (1817,XVI:83). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female.

120 (III:58-60, 1801-04) Le Coriphée.
Erythropygia coryphaeus. Levaillant recorded the species from the Swartkops River (18) and the Sundays River (20), and in the areas further east where he travelled on his first expedition, until reaching the Camdeboo (35). The description was the basis of *Sylvia coryphaeus* Vieillot (1817,XI:177). Plate without mention of artists, showing f.1 (above) a male, f.2 a female.

121 f.1 (III:61-62, 1801-04) Le Caqueteuse.
Bradypterus baboecala. The bird was seen in the wet places of the country of the Auteniquoi (12) and at Verloore Vlei (46). The species was unknown to Sundevall (1857:37), while Layard (1867:365) commented on the bad quality of the plate. The description was the basis of *Sylvia baboecala* Vieillot (1817,XI:172) and *Motacilla garrula* Wilkes (1817,XVI:97). Plate engraved by Perée, showing this species on f.1 (below). Compare UBL 126.

121 f.2 (III:63-64, 1801-04) L'Isabelle.
Acrocephalus baeticatus. This species lived in the same places as the Caqueteuse of plate 121 f.1. Levaillant said that he had to examine more than 30 specimens before he was able to separate them. The description was the basis of *Sylvia baeticata* Vieillot (1817,X:195) and *Motacilla isabella* Wilkes (1817,XVI:98). Plate as above.

122 (III:65-66, 1801-04) Le Pavaneur.
Acrocephalus schoenobaenus. Levaillant found it near Plettenberg Bay (14) and in the country of the Auteniquoi (12). The description was the basis of *Sylvia brachyptera* Vieillot (1817,XI:206) and *Motacilla pavo* Wilkes (1817,XVI:98). Plate engraved by Perée, showing f.1 (above) a male, f.2 a female.

123 (III:67-68, 1801-04) Le Plastron Noir.
Apalis thoracica. According to Levaillant, the bird was rare near the Cape and in the east. He mainly saw it near the Olifants River (49) and further northwards. It was common near the Orange River. Sundevall (1857:38) suggested that only the male of fig.1 was attributable to this species, as there is no sexual dimorphism. It can also be due to bad draughtsmanship. The description was the basis of *Motacilla thoracica* Shaw & Nodder (1811, pl.969), *Sylvia lunulata* Vieillot (1817,XI:210) and *Motacilla melogaster* Wilkes (1817,XV:79). Plate engraved by Perée, showing f.1 (above) a male, f.2 a female. Compare UBL 172 f.1 depicting the male, in reverse.

124 (III:69, 1801-04) Le Rousse-Tête.
Cisticola fulvicapilla. It was especially numerous in the Camdeboo (35), and less common in Caffraria (27) and in Little Namaqualand. The description was the basis of *Sylvia fulvicapilla* Vieillot (1817,XI:217) and *Motacilla ruficapa* Wilkes (1817,XVI:80). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female; the name of the bird is given as 'La Fauvette Rousse Tête.'

125 (III:70-71, 1801-04) L'Olivert.
Camaroptera brachyura. Levaillant collected only one pair at Pampoen Kraal (12). The description was the basis of *Sylvia olivacea* Vieillot (1817,XI:205), *Motacilla viridis* Wilkes (1817,XVI:80) and *Sylvia brachyura* Vieillot (1820:459, a substitute name). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female; the bird is named 'La Fauvette Olivert' on the plate.

126 (III:72-73, 1801-04) Le Grignet.
Parisoma subcaeruleum. Levaillant found it often near the Gourits River (9) and further east up to the Brak Rivers. Figure 2 is a totally white specimen. The description was the basis of *Sylvia subcoerulea* Vieillot (1817,XI:188), *Motacilla grisea* Wilkes (1817,XVI:80) and *Parisoma rufiventris* Swainson (1837:247). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female. Another state of this plate exists (Kennedy 1967,II, L237) where the engraver Gremilliet is mentioned, while f.2 is said to show 'Variété du Grignet.' Compare UBL 16 of the same birds, not reversed, where f.2 is entitled 'Var: de la Fem:'

127 (III:74-75, 1801-04) Le Citrin.
Prinia flavicans. Levaillant saw this bird north of the Orange river 'depuis la rivière de l'Epine-Noire jusque dans le Tropique.' The description was the basis of *Motacilla citrina* Wilkes (1817,XVI:78) and *Sylvia flavicans* Vieillot (1820:438). Plate engraved by Perée, showing f.1 (above) a male, f.2 a female. Compare UBL 172 f.1 of the male, in reverse.

**128 (III:76, 1801-04) Le Double Sourcil.
Levaillant said that he only saw it in the Karroo (36). The bird on the plate cannot be identified. The description was the basis of *Sylvia diophrys* Vieillot (1817,XI:182) and *Motacilla ciliata* Wilkes (1817,XVI:80). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female.

129, 130 f.1 (III:77-85, 1801-04) Le Capocier.
Prinia maculosa. Levaillant found the bird numerous around the Cape, in the Zwartland (44) and near Saldanha Bay. Later he saw it near the Sundays River (20) and the Swartkops River (18). Sundevall (1857:38) remarked that this species does not exhibit sexual dimorphism, saying that the female of pl.129 might belong to another species. Plate 129 does not mention an artist, pl.130 engraved by Perée. Pl.129 shows the female and her nest, pl.130 the male. The name of the bird is spelled 'Capolier'.

*130 f.2 (III:86-87, 1801-04) La Queue Gazée.
Levaillant had seen only one specimen, from Java, in the collection of Jacob Temminck. Later, Temminck (1807:128, no.451 *Sylvia malachura*) recorded a pair. The description was the basis of *Motacilla fimbriata* Wilkes (1817,XVI:102). Plate engraved by Perée.

131 (III:88-93, 1801-04) Le Pinc-Pinc.
Cisticola textrix. It was common all over the Cape Province. The description was the basis of *Sylvia textrix* Vieillot (1817,XI:208) and *Motacilla pincpinc* Wilkes (1817,XVI:102). Plate does not mention the artists, showing a male and the nest. The nest probably belonged to another species (Sundevall 1857:39).

132 (III:94-95, 1801-04) Le Tcheric.
Zosterops pallidus capensis. This bird was common in the Cape Province, especially at the Duiwenhoks River (8), in Caffraria (27) and at Bruintjeshoogte (21). The description was the basis of *Motacilla tcheric* Wilkes (1817,XVI:94). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female. The name is given as 'Le Figuier Tcheric'.

**133 (III:96-97, 1801-04) Le Figuier à Cuti-Pennes.
Levaillant stated that he found this bird near the Orange River, west of Goodhouse. It was never seen again in South Africa (Sundevall 1857:39, Layard 1867). The description was the basis of *Sylvia oxyura* Vieillot (1817,XI:161) and *Motacilla acutipennis* Wilkes (1817,XVI:91). Plate does not mention the artists, showing f.1 (above) a male,f.2 a female. Compare UBL 133 of the same bird, not reversed.

134 (III:98-99, 1801-04) Le Becque Fleur.
Anthoscopus minutus. Levaillant found this bird first at Heerenlogement (47) and further to the north up to the other side of the Olifants River. The description was the basis of *Motacilla apus* Wilkes (1817,XVI:103). Plate does not mention the artists, showing f.1 (below) a male, f.2 a female, with the name spelled 'Le Figuier Becque Fleur'.

135 (III:100-103, 1801-04) Le Crombec.
Sylvietta rufescens. Levaillant, who also named it 'Figuier à Bec Courbi', found it all over the Cape Province. He mentioned the Olifants River (49) as one locality. The description was the basis of *Dicaeum rufescens* Vieillot (1817,IX:407), *Motacilla curvata* Wilkes (1817,XVI:103) and *Sylvietta crombec* Lafresnaye (1839:258; not based on a specimen according to Bangs 1930:341). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female; the name is given as 'Le Figuier Crombec.'

*136 (III:104, 1801-04) Le Figuier Rouge.
This 'Figuier rouge à ailes et queue noires et ventre gris' was known from Amboina. Levaillant had received a pair from Boers in Holland. The description was the basis of *Motacilla amboynensis* Wilkes (1817,XVI:91). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female.

137 (III:111-112, 1801-04) La Mésange Noire.
Parus niger. Levaillant saw it near the Sundays River (20), near the Swartkops River (18) and in Caffraria (27). The description was the basis of *Parus niger* Vieillot (1818,XX:325). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female.

138 (III:113-114, 1801-04) La Mésange Grisette.
Parus cinerascens. Levaillant saw it in the Camdeboo (35) where it was known as 'malabartje'. The description was the basis of *Parus cinerascens* Vieillot (1818,XX:316) and *Parus variegatus* Wilkes (1821,XVIII:726). Plate does not mention the artists, showing f.1 (above) a male, f.2 a variety (which is probably a young male).

139 f.1 (III:115-116, 1804) La Mésange Brune à Poitrine Noire.
Parus afer. Levaillant found it everywhere during his travels. The description was the basis of *Parus fuscus* Vieillot (1818,XX:309). Plate does not mention the artists, showing the male on f.1 (which is the lower figure on the plate, wrongly labelled '2', cf. Sundevall 1857:40).

*139 f.2 (III:117, 1804) La Mésange Grise au Joue Blanche.
Jacob Temminck had a specimen received from Batavia, which he gave to Levaillant (Stresemann 1953a:325). The description was the basis of *Parus cinereus* Vieillot (1818,XX:316) and *Parus albigena* Wilkes (1821,XVIII:727). Plate as above, this bird on the upper figure.

*140 (III:118-120, 1804) Le Cap Nègre.
Levaillant received six specimens direct from Ceylon. The description was the basis of *Sylvia atricapilla* Vieillot (1820,II:481) and *Parus dubius* Wilkes (1821,XVIII:727). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female.

*141 (III:121-125, 1804) Le Quadricolor.
Levaillant received some specimens from Colombo, Ceylon. The description was the basis of *Aegithine quadricolor* Vieillot (1816,I:176). Plate does not mention the artist, showing f.1 (above) a male, f.2 a female.

142, 143 (III:126-129, 1804) Le Tchitrec.
Terpsiphone viridis granti. Levaillant saw it from the Duiwenhoks River (8) eastwards to Caffraria, especially near the Sundays River (20) and the Swartkops River (18). Plates do not mention the artists, pl. 142 f.1 (above) is a male, f.2 a female, pl.143 shows the nest. Compare UBL pl.75.

*144-146 (III:130-134, 1804, 1805) Le Tchitrecbé.
Levaillant knew the bird from Ceylon. He noted the inaccuracy of the locality in the description by Brisson (1760,II:418, pl.XLI f.1) as 'Le Gobe-Mouches du Cap de Bonne-Espérance'. Plate 144 does not mention the artists, pls. 145 and 146 engraved by Bouquet. All three are large folio size, larger than the other plates in the volume. Plate 144 is 'Le Gobe-Mouches Tchitrec bé roux' with f.1 (above) a male, f.2 a female. Plate 145 is 'Le Gobe-Mouches Tchitrec bé blanc' with f.1 (above) a male, f.2 a female. Plate 146 is 'Le Gobe-Mouches Tchitrec bé varié' with f.1 (above) a male, f.2 a female.

**147 (III:135-137, 1805) Le Schet Roux.
Levaillant stated its presence in the 'Pays des Caffres', but it is unknown in South Africa. The description was the basis of *Muscipeta rufa* Swainson (1843:60). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Schet-Roux.'

**148 (III:138-139, 1805) Le Schet Noir.
Like the preceding species, this one was claimed to occur in Caffraria, while it is unknown in South Africa. The description was the basis of *Muscipeta bicolor* Swainson (1843:60). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Schet Noir.'

**149 (III:140-142, 1805) Le Nebuleux.
Levaillant claimed that he saw this bird north of the Orange River. Temminck (1807:116) recorded a specimen in his collection as 'Gobe-mouches blanc à fillets et ailes noires ou le Nebuleux'. That bird was in the RMNH Leiden, where it was studied and shown to have been manufactured (Hartlaub 1846:486, Sundevall 1857:41). The description was the basis of *Sylvia nebulosa* (Vieillot (1817,XI:204), *Muscicapa nubila* Wilkes (1818,XVI:260) and *Muscipeta fluvicola* Swainson (1843:60). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Nebuleux.' Compare UBL 79 with the bird of f.1.

**150 (III:143-144, 1805) Le Cordon Noir.
Levaillant claimed the presence of this bird north of the Orange River. The specimen was manufactured (Sundevall 1857:41, Layard 1867). The description was the basis of *Sylvia melanoleucus* Vieillot (1817,XI:176), *Muscicapa loricaria* Wilkes (1818,XVI:261) and *Muscipeta pectoralis* Swainson (1843:60). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches à Cordon Noir.' Compare UBL 206 of the same bird, not reversed.

Volume IV, Plates 151-199, 1805-1806

151 (IV:5-7, 1805) Le Gobe Mouches Mantelé.
Trochocercus cyanomelas. Levaillant first saw this species in the country of the Auteniquoi (12), and later in regions further to the east. The description was the basis of *Muscicapa cyanomelas* Vieillot (1818,XXI:473), *Muscicapa penulata* Wilkes (1818,XVI:264) and *Muscipeta scapularis* Stephens (1826,XIII(2):112). Plate without mention of the artists, showing f.1 (above) a male, f.2 a female. Compare UBL 80 of the same bird, in reverse.

**152 (IV:8, 1805) Le Gobe Mouches à Lunettes.

Levaillant said that this bird occurred near the Gamtoos River, but it is unknown from South Africa. The description was the basis of *Muscicapa superciliata* Wilkes (1818,XVI:265) and *Platyrhynchos perspicillatus* Vieillot (1818,XXVII:14). Plate does not mention the artists, showing f.1 (above) a male, f.2 a female.

**153 (IV:9-10, 1805) L'Azur à Calotte et à Collier Noir.

Levaillant thought that he had seen this bird in the eastern part of the Cape Province, but it is unknown from South Africa (Bonaparte 1850,I:320, Sundevall 1857:42). Plate without mention of artists, showing f.1 (above) a male, f.2 a female, with the name as 'Le Gobe Mouches Azur ...'

154 (IV:11-12, 1805) Le Mignard.

Stenostira scita. Levaillant saw this species both in Caffraria (27) and north of the Orange River. The description was the basis of *Muscicapa scita* Vieillot (1818,XXI:474). Plate without mention of the artists, showing f.1 (above) a male, f.2 a female.

*155 (IV:13-15, 1805) L'Oranor.

Levaillant had received a pair of this Ceylonese bird from Jacob Temminck. The description was the basis of *Muscicapa subflava* Vieillot (1818,XXI:483) and *Muscicapa parus* Wilkes (1818,XVI:262). Plate without mention of the artists, showing f.1 (above) a male, f.2 a female, with the name of the bird given as 'Le Gobe Mouches Oranor'.

156 (IV:18-20, 1805) L'Ondulé.

Muscicapa adusta. Levaillant saw this bird abundantly in the country of the Auteniquoi (12) and further to the east, which he confusingly indicated as 'Côte de Natal'. Plate without mention of the artists, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Ondulé.'

157 (IV:21-23, 1805) L'Etoilé.

Pogonocichla stellata. The bird was found near Plettenberg Bay (14) and the nearby Poort (15). The description was the basis of *Muscicapa stellata* Vieillot (1818,XXI:468; also Wilkes 1818,XVI:270), and *Muscicapa stellaris* Stephens (1826,XIII(2):125), while Vieillot's species was the type of the genus *Pogonocichla* Cabanis (1847:314). Plate engraved by Bouquet, showing f.1 (above) a male, f.2 a female, with the name given as 'Gobe Mouches Etoilé'. Compare UBL 82 of the male.

**158 (IV:24-25, 1805) L'Azurou.

Levaillant claimed to have seen it near the Fish River north of the Orange River, but it is unknown in South Africa (Sundevall 1857:42). The description was the basis of *Muscicapa aurea* Vieillot (1818,XXI:463), *Muscicapa azurufa* Wilkes (1818,XVI:270) and *Muscicapa azurea* Stephens (1826,XIII(2):116). Plate engraved under direction of Bouquet, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Azurou.'

**159 (IV:26, 1805) Le Capuchon Blanc.

According to Levaillant, this bird occurred among the rocks in the country of the Houzouanas (68) north of the Orange River. It has not been seen again in South Africa (Sundevall 1857:42, Layard 1867). The description was the basis of *Muscicapa albicapilla* Wilkes (1818,XVI:270). Plate engraved under the direction of Bouquet, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches à Capuchon Blanc'.

160 (IV:27-28, 1805) Le Mônenar.

Batis capensis. Levaillant found this bird between the Duiwenhoks River (8) and the country of the Auteniquoi (12). The plate is not clear (Bonaparte 1850,I:160, Sundevall 1857:42). The description was the basis of *Muscicapa pristinaria* Vieillot (1818,XXXI:474), *Muscicapa molenaria* Wilkes (1818,XVI:270) and *Muscipeta pulsator* Stephens (1826,XIII(2):112). Plate engraved under the direction of Bouquet, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Mônenar.'

161 (IV:29-32, 1805) Le Pririt.

Batis pririt. Levaillant saw it in most regions where he travelled. The description was the basis of *Muscicapa pririt* Vieillot (1818,XXI:486; also Wilkes 1818,XVI:271). Plate engraved under the direction of Bouquet, showing f.1 (above) a male, f.2 a female, with the name given as 'Le Gobe Mouches Pririt.'

162, 163 (IV:35-36, 1805) L'Echenilleur Gris.

Coracina caesia. Levaillant saw this bird in the country of the Auteniquoi (12) and near the Swartkops River (18) and Sundays River (20). The description was the basis of *Campephaga cana* Vieillot (1817,X:49). Plates both engraved under the direction of Bouquet, showing pl.162 a male, pl.163 a female. Compare UBL 46 of the male, in reverse.

164 (IV:37, 1805) L'Echenilleur Jaune.

Campephaga flava (female). Levaillant failed to give a locality. The bird of this plate is a female of *C.flava*, while a male is depicted on pl.165, although Levaillant separated them as species. The two birds received different scientific names from Vieillot and others, until their conspecificity was discovered by Bonaparte (1850,I:353), Cabanis (1850,I:61) and Sundevall (1857:43). The first name given to the bird on plate 164 was selected for the species. The description was the basis of *Campephaga flava* Vieillot (1817,X:49). Plate engraved under the direction of Bouquet, showing the 'Mâle'. Compare UBL 45 with the same bird, in reverse, called 'le coucou rayé du Gamtoos Rivier ou l'Echenilleur jaune.'

165 (IV:38, 1805) L'Echenilleur Noir.

Campephaga flava (male). The male of the bird shown on pl.164. The description was the basis of *Campephaga nigra Vieillot (1817,X:49)*. Plate engraved under the direction of Bouquet, showing the 'Mâle'.

**166 (IV:41-43, 1805) Le Drongo.

Levaillant said that he found this bird common in Caffraria (27). He must have confused the species, because this animal is unknown from South Africa (A.Smith 1838-48, pl.34, Sundevall 1857:43). The description was the basis of *Dicrurus cristatus* Vieillot (1817,IX:587) and *Muscicapa drongo* Wilkes (1818,XVI:271). Plate engraved under the direction of Bouquet.

167, 168 (IV:44-45, 1805) Le Drongear.

Dicrurus adsimilis. Levaillant saw it between the Duiwenhoks River (8) and Plettenberg Bay (14). The description was the basis of *Dicrurus musicus* Vieillot (1817,IX:586). Plates engraved under the direction of Bouquet. Plate 167 shows the bird, pl.168 its nest and egg. Compare UBL 49 of the animal, not reversed, called 'Le Drongo du Gamtos Rivier.'

**169 (IV:46-47, 1805) Le Drongo à Moustache.

Levaillant said that he saw this bird only once, near his Camp du Massacre (26). It is unknown from South Africa and may have been manufactured (A.Smith 1838-48, pl.34, Sundevall 1857:43). The description was the basis of *Dicrurus mystaceus* Vieillot (1817,IX:588). Plate engraved by Fessard, showing the male.

*170 (IV:48, 1805) Le Drongri.

Levaillant received 13 specimens from Ceylon. The description was the basis of *Dicrurus leucophaeus* Vieillot (1817,IX:587). Plate engraved by Fessard.

*171 (IV:49, 1805) Le Drongri à Ventre Blanc.

Levaillant received two specimens of this Javanese bird from Jacob Temminck. One of these he later gave to Gevers in Rotterdam. The bird has not been seen again (Bonaparte 1850,I:351). The description was the basis of *Dicrurus leucogaster* Vieillot (1817,IX:587) and *Muscicapa albiventris* Wilkes (1818,XVI:272). Plate engraved by Fessard.

*172 (IV:50-51, 1805) Le Drongo Fingah.

Levaillant saw one specimen of this Indian bird in the collection of Boers in Hazerswoude, who gave it to him. Plate engraved by Fessard.

*173 (IV:52, 1805) Le Drongup.

Temminck's specimen of this Ceylonese bird was the only one known. The description was the basis of *Dicrurus lophorinus* Vieillot (1817,IX:587). Plate engraved by Fessard.

*174 (IV:53, 1805) Le Drongolon.

The locality from where this bird came is not indicated, but it was

received 'dans un même envoi', probably like the bird on plate 173. The description was the basis of *Dicrurus macrocercus* Vieillot (1817,IX:588) and *Muscicapa longicauda* Wilkes (1818,XVI:272). Plate engraved by Fessard.

*175 (IV:54-55) Le Drongo à Raquettes.
Levaillant saw specimens of this bird in the collections of Jacob Temminck, Gigot-d'Orcy and in the Paris museum. Plate engraved by Fessard.

*176 (IV:56, 1805) Le Drongo Bronzé.
A species from India. The description was the basis of *Dicrurus aeneus* Vieillot (1817,IX:586), *Muscicapa aerea* Wilkes (1818,XVI:272) and *Dicrurus aeratus* Stephens (1826,XIII(2):138).

177 (IV:59-60, 1805) La Lavandière Brune.
Motacilla capensis. Levaillant saw this bird often in and near Cape Town. Plate engraved by Fessard, showing the male.

178 (IV:61-63, 1805) L'Aguimp ou la Lavandière Pie.
Motacilla aguimp. It was seen near the Orange River. The description was the basis of *Motacilla arenaria* Wilkes (1817,XVI:85) and *Motacilla aguimp* Dumont (1821,XXI:266). Plate engraved by Fessard.

**179 (IV:64-65, 1805) La Lavandière Variée.
Levaillant stated its presence in Caffraria, but it is unknown from South Africa (Gray 1849, Bonaparte 1850,I:251). The description was the basis of *Motacilla variegata* Vieillot (1817,XIV:179). Plate engraved by Fessard.

180 (IV:66-68, 1805) Le Traquet Pâtre.
Saxicola torquata. Levaillant saw it in Cape Town and in different parts of the Cape interior. The description was the basis of *Motacilla pastor* Wilkes (1817,XVI:90). Plate engraved by Fessard, showing f.1 (above) a male, f.2 a female.

181, 182 (IV:69-71, 1805-06) Le Traquet Imitateur.
Oenanthe pileata. It was common in many parts of the Cape interior. The specimen depicted on plate 181 was a large male caught in the Soetemelksvlei (6). The description was the basis of *Oenanthe imitatrix* Vieillot (1818,XXI:422). Plates both engraved by Fessard, showing pl.181 a male and on pl.182 a young specimen.

183 (IV:72-75, 1806) Le Traquet Familier.
Cercomela familiaris. Levaillant found it in the western part of the Cape Province. The description was the basis of *Motacilla familiaris* Wilkes (1817,XVI:86) or *Saxicola familiaris* Stephens (1826,XIII(2):241). Plate engraved by Fessard, showing f.1 (above) a male, f.2 a female.

184 f.1 (IV:76-77, 1806) Le Tractrac.
Cercomela tractrac. Levaillant shot 8 males and 5 females in the country of the Auteniquoi (12). The description was the basis of *Motacilla tractrac* Wilkes (1817,XVI:89) and *Oenanthe cinerea* Vieillot (1818,XXI:437). Plate engraved by Fessard, with the name of the bird as 'Le Traquet Tractrac' on f.1 (above).

184 f.2, 185 (IV:78-79, 1806) Le Traquet Montagnard.
Oenanthe monticola. Levaillant saw it in Namaqualand, but he did not specify if this was south or north of the Orange River. The description was the basis of *Motacilla montana* Wilkes (1817,XVI:89) and *Oenanthe monticola* Vieillot (1818,XXI:434). Plates engraved by Fessard, showing on pl.184 f.2 a male, pl.185 f.1 'le jeune âge', and f.2 'le moyen âge'.

186, 187 (IV:80-81, 1806) Le Traquet Fourmillier.
Myrmecocichla formicivora. This bird was found near the Swartkops River (18) and near the Sundays River (20). The description was the basis of *Oenanthe formicivora* Vieillot (1818,XXI:421) and *Motacilla formicivora* Wilkes (1817,XVI:88). Plates engraved by Fessard, showing pl.186 a male, pl.187 a female.

*188 f.1 (IV:82, 1806) Le Traquet à Queue Striée.
Levaillant saw this specimen from India in the collection of Joan Raye. The description was the basis of *Motacilla striata* Wilkes (1817,XVI:86) and *Oenanthe ptygmatura* Vieillot (1818,XXI:436). Plate engraved by Fessard, showing f.1 (below) the next species denoted by f.2 in the text, and f.2 this species. Compare UBL 114 showing the same two birds, not reversed, with inaccurate locality 'Païs des Caffres.'

*188 f.2 (IV:83, 1806) Le Traquet à Cul Roux.
Another Indian species. The description was the basis of *Motacilla rubra* Wilkes (1817,XVI:86) and *Oenanthe rufiventris* Vieillot (1818,XXI:431). Plate as above.

**189 (IV:84-85, 1806) Le Traquet Commandeur.
This species is unknown from South Africa, although Levaillant thought to have seen it north of the Orange River. He mentioned a specimen in the collection of Jacob Temminck from Malymbe. That animal is preserved in the RMNH, the type of *Oenanthe nigra* Vieillot (1818,XXI:431), as noted by Hartlaub (1857:65) and Büttikofer (1892). Besides Vieillot's name, this description was also the basis of *Motacilla imperator* Wilkes (1817,XVI:88). Plate engraved by Fessard.

**190 (IV:86-87, 1806) Le Traquet Coureur.
Levaillant stated to have seen it in the plains of the Namero (53). The bird was also called 'le Traquet à Calotte et Queue Blanche.' It does not occur in South Africa (Sundevall 1857:45). The description was the basis of *Motacilla cursor* Wilkes (1817,XVI:86) and *Oenanthe cursoria* Vieillot (1818,XXI:431). Plate engraved by Fessard, showing a male.

**191 (IV:88-89, 1806) Le Tracal.
Levaillant found this bird in Great Namaqualand. It is unknown from South Africa. The description was the basis of *Motacilla alauda* Wilkes (1817,XVI:88). Plate engraved by Fessard, showing a male. Compare UBL 211 of the same bird, not reversed.

192 (IV:92-93, 1806) Le Sirli.
Certhilauda curvirostris. It was common near Cape Town. Plate engraved by Fessard, showing a male.

193 (IV:94, 1806) L'Alouette à Gros Bec.
Galerida magnirostris. Levaillant found it common everywhere he travelled. The description was the basis of *Alauda rostro-crassa* Wilkes (1808,I:235), *Alauda crassirostris* Vieillot (1816,I:373, preoccupied by *A.crassirostris* Pennant, 1769) and *Alauda magnirostris* Stephens (1826,XIV:26). Plate engraved by Fessard, showing the male.

194 (IV:95-96, 1806) L'Alouëtte Bateleuse.
Mirafra apiata. Levaillant saw it in many places in South Africa. The description was the basis of *Alauda percutiens* Wilkes (1808,I:236) and *Alauda apiata* Vieillot (1816,I:342). Plate engraved by Fessard, showing a male.

195, 196 (IV:97-98, 1806) L'Alouëtte Sentinelle.
Macronyx capensis. Levaillant found it very numerous in Cape Town and further eastwards. Plate engraved by Fessard, showing on pl.195 a male, on pl.196 a female. Compare UBL 130 of the male like pl.195 in reverse.

**197 (IV:99, 1806) L'Alouëtte à Dos Roux.
Levaillant observed it in various places in the Cape interior. The bird on the plate is difficult to recognise. Sundevall (1857:46) suggested that it was a bad representation of *Certhilauda albescens*, while Roberts (1935b:257) regarded it as unrecognisable, although maybe resembling a young *Calandrella cinerea*. It may be best to continue to regard the bird as indeterminate. The description was the basis of *Alauda dorsorubra* Wilkes (1808,I:236) and *Alauda pyrrhonota* Vieillot (1816,I:361). Plate engraved by Fessard, showing a male.

**198 (IV:100, 1806) L'Alouette à Calotte Rousse.
Levaillant shot 3 males in the country of the Houzouanas (67). It has not been seen again in South Africa (Sundevall 1857:46, McLachlan & Liversidge 1978:xxxii). The description was the basis of *Alauda pileorubra* Wilkes (1808,I:236) and *Alauda rufipilea* Vieillot (1816,I:345). Plate engraved by Fessard.

199 (IV:101-102, 1806) La Petite Alouette à Tête Rousse.
Calandrella cinerea. Levaillant obtained only one specimen, near the Gamtoos River (16). He gave it to Temminck, and it should be the one

recorded by Temminck (1807:120 Petite alouette à tête rousse). Plate does not mention the artists.

Volume V, Plates 200-247, 1806-1807.

On none of the plates in this volume either the draughtsman or the engraver is identified. This has not been mentioned in every case.

200, 201 (V:15-18, 1806) Le Coucou Vulgaire d'Afrique.
Cuculus gularis. Levaillant first saw it in the Camdeboo (35). The description was the basis of *Cuculus gularis* Stephens (1815,IX(1):83). Plate 200 depicted a male, pl.201 a specimen of 'le premier âge'. Compare UBL 61 resembling pl.200 in reverse.

*202, 203 (V:19, 1806) Le Coucou Vulgaire d'Europe.
The European cuckoo was added for easy comparison with the African species of pls.200-201. Plate 202 shows a male, pl.203 a young one.

204, 205 (V:20-24, 1806) Le Coucou Criard.
Cuculus clamosus. Levaillant found this bird near the Great Fish River (23) and in other places in the eastern Cape Province, e.g. in Caffraria (27), near the Sundays River (20), near the Swartkops River (18) and in the Camdeboo (35). Plate 204 shows a male, pl.205 a female. Compare UBL 83 resembling pl.204, not reversed.

206 (V:25-27, 1806) Le Coucou Solitaire.
Cuculus solitarius. It was found in Caffraria (27) and in the Camdeboo (35). The description was the basis of *Cuculus solitarius* Stephens (1815,IX(1):84). The plate depicted a male. Compare UBL 60 and KB 28 of the same bird, in reverse.

207, 208 (V:28-30, 1806) Le Coucou Edolio.
Clamator jacobinus. Levaillant found this species in different places around Cape Town. He assumed that the two birds shown were a male (pl.207) and a female (pl.208). However, they represent two different subspecies, i.e. *Clamator jacobinus serratus* on pl.207 and *C.j.jacobinus* on pl.208. The description was the basis of *Cuculus edolius* Ranzani (1821,III(2):135). Compare RMNH 34, 35 of the same birds.

*209 (V:31-32, 1806) Variété du Coucou Edolio.
Clamator levaillantii. Levaillant had seen only one specimen, in the collection of Jacob Temminck (but not recorded by Temminck 1807). It came from an unknown African locality. The description was the basis of *Cuculus afer* Leach (1814:72, pl.XXXI; preoccupied) and *Coccyzus levaillantii* Swainson (1829:13). The bird also occurs in South Africa.

210, 211 (V:36-37, 1806) Le Coucou Didric.
Chrysococcyx caprius. Levaillant found it first at the Little Fish River (22) and in other places during his first expedition, up to Caffraria (27) and the Camdeboo (35). In the west he recorded it between the Olifants River (49) and Little Namaqualand (59). Plate 210 shows a male, pl.211 a female. Compare UBL 62, UBL 96 and KB 29 resembling the specimen on pl.210 there called 'coucou verd doré ou le coucou didric.'

212 (V:38-39, 1806) Le Coucou de Klaas.
Chrysococcyx klaas. Levaillant collected only one male specimen, near the Plat River (30). The bird was named after Klaas, one of the Hottentots who accompanied him on his expeditions. The description was the basis of *Cuculus klaas* Stephens (1815,IX(1):128) and *Cuculus klaasii* Vieillot (1817,VIII:230), misspelled *Chrysococcyx clasii* by Boie (1828:325) and *Cuculus klasii* by Lesson (1831:153). The plate shows the male. Compare UBL 97 of the same bird, in reverse.

**213 (V:40-41, 1806) Le Coucou à Collier Blanc.
Levaillant claimed that he saw this bird at the Sundays River (20) and Swartkops River (18), while also recording it from Senegal. It has not been seen again in South Africa (Sundevall 1857:47). The description was the basis of *Cuculus collaris* Vieillot (1817,VIII:229). The plate depicted a male.

**214 (V:42, 1806) Le Coucou à Gros Bec.
Levaillant stated that he shot one pair near the Fish River north of the Orange River. He depicted a specimen in the collection of Joan Raye from India (recorded in Raye 1827, no.738 *Cuculus crassirostris*). The plate shows a male.

*215 (V:43, 1806) Le Coucou Gris Bronzé
Levaillant saw one specimen in the collection of Jacob Temminck. It came from Malimbe in West Africa, although the locality recorded by Temminck (1807:57) was 'Angole'. The description was the basis of *Cuculus oereus* Vieillot (1817,VIII:229).

**216 (V:44-46, 1806) Le Coucou Tachirou.
Levaillant claimed that he saw this species at the Swart Doorn River (52) and at the Kaussi River (56). It is unknown from South Africa. The plate shows a male. Compare UBL 81 of the same bird, in reverse.
In the text to this plate, Levaillant briefly mentioned another species of cuckoo, practically all white and tufted, which he said to have found in the Camdeboo (35). The description does not fit any South African species.

**217 (V:49-50, 1806) Le Coua.
Levaillant implied the presence of this bird in South Africa without adding any precise localities. It is not known from there. The plate shows a male.

**218 (V:51-52, 1806) Le Coua Tait-Sou.
According to Levaillant, it was present in Caffraria (27). This has never been confirmed (Sundevall 1857:48). The specimen in the collection of Joan Raye came from Madagascar (Raye 1827, no.735). The plate shows a male. Compare RMNH 36 of the same species in a different attitude.

219 (V:54-57, 1807) Le Coucal Houhou.
Centropus superciliosus burchellii. Levaillant saw it from the Gamtoos River (16) to Caffraria (27) in the east, and westwards to the Camdeboo (35). The identity of the bird was suggested by Roberts (1935b:268). The plate shows a male.

**220 (V:58-60, 1807) Le Coucal Noirou.
Centropus nigrorufus. Levaillant claimed to have killed only two specimens near the Swart River (32). One of those he gave to the Paris museum, the other to Jacob Temminck. The description was the basis of *Centropus nigrorufus* Cuvier (1816,I:426), only known from Java. The plate shows a male. Compare RMNH 37 of the same bird.

**221 (V:61-62, 1807) Le Coucal Rufin.
Levaillant stated its presence at the Great Fish River (23), but the bird is unknown from South Africa. The description was the basis of *Polophilus rufus* Stephens (1815,IX(1):44) and *Centropus rufinus* Cuvier (1816,I:426). The plate shows a male.

**222 (V:63, 1807) Le Coucal Nègre.
Levaillant said that he shot 5 specimens in Caffraria (27). It is unknown in South Africa. The description was the basis of *Polophilus maurus* Stephens (1815,IX(1):57), *Centropus aethiops* Cuvier (1816,I:426) and *Corydonix nigerrimus* Vieillot (1819,XXXIV:297). The plate shows a male.

*223 (V:64-65, 1807) Le Coucal Géant.
There was one specimen in the collection of Jacob Temminck from Australia (Stresemann 1953a:327). It was mentioned in Temminck (1807:59, 208) as 'Le coucal-géant ou coucou rayé de blanc de la Nouvelle Hollande, mâle'. The description was the basis of *Polophilus gigas* Stephens (1815,IX(1):45) and *Corydonix giganteus* Vieillot (1817,XXXIV:295).

*224 (V:68-69, 1807) Le Malkoha.
This species from Ceylon was present in many collections including those of the Paris museum, Jacob Temminck, Joan Raye, W.S.Boers, L.Holthuysen, A.Gevers etc. Levaillant himself also had one, which he depicted on the plate. Compare RMNH 38 of the same species in a different attitude.

*225 (V:70, 1807) Le Malkoha Rouverdin.
Levaillant only knew a specimen from Ceylon in the collection of Jacob Temminck. It was figured on the plate. It was listed by Temminck (1807:59,209) as 'Malkoha rou-verdin de Ceylan, mâle'. The descrip-

tion was the basis of *Cuculus curvirostris* Shaw & Nodder (1810,XXI:905), *Phoenicophaeus tricolor* Stephens (1815,IX(1):61) and *Phoenicophaeus viridis* Vieillot (1817,XVIII:462).

*226, 227 (V:71-75, 1807) Le Vouroug-Driou.
Levaillant believed to have seen two specimens in Caffraria (27), where it is unknown. Plate 226 shows a male, pl.227 a female. Compare UBL 102 and UBL 103 resembling the two plates, in reverse; and RMNH 39 and RMNH 40 of the same species in a different attitude.

228, 229 (V:79-80, 1807) Le Couroucou Narina.
Apaloderma narina. Levaillant saw this bird in the country of the Auteniquoi (12), near the Gamtoos River (16) and in Caffraria (27). It was again described in the *Promerops*, part 3, pls. 10-11. The description was the basis of *Trogon narina* Stephens (1815,IX(1):14). Plate 228 shows a male, pl.229 a female. Compare RMNH 41, 42; UBL 43, 44; KB 18, and Yale 12, 13 of the same depictions in reverse.

*230-232 (V:82-84, 1807) Le Calao Caronculé.
The hornbills treated on plates 230-240 can be seen as a supplement to the Indian species treated in the *Oiseaux Nouveaux* (1801-1802). The species figured here was known from Senegal and Abyssinia. Plate 230 shows a male, pl.231 the bill in natural size, pl.232 the bill of a young specimen. Compare RMNH 43 and RMNH 44 of the heads and bills of the same species in the collection of Joan Raye (listed by Raye 1827, nos. 654, 655).
In the text to these plates, pp.85-86, Levaillant mentioned another species called 'Calao Brac' which was not illustrated. Levaillant referred to the voyage by Labat to Ethiopia, stating that he had never noticed the bird in a European collection.

*233 (V:87-88, 1807) Le Calao Longibande.
Levaillant knew three specimens from Angola: one in the collection of Jacob Temminck, one in his own, and a third which he had sold to an unknown person. The description was the basis of *Buceros longibandus* Wilkes (1808,III:480) and *Buceros fasciatus* Shaw (1811,VIII(1):34). Compare RMNH 45 of the same specimen.

234, 235 (V:89-90, 1807) Le Calao Couronné.
Tockus alboterminatus. Levaillant found the crowned hornbill from the region between the two Brak Rivers (11) in the west to Caffraria in the east (27). Plate 234 shows a male, pl.235 a young female. Compare UBL 154 and UBL 155 of the same birds, in reverse. RMNH 46 is a male in another attitude.

*236, 237 (V:92-93, 1807) Le Calao Nasique.
Levaillant knew one specimen in the Paris museum, and two in the collection of Joan Raye, from West Africa. Plate 236 shows a male, pl.237 a young. Compare RMNH 47 and RMNH 48 of the same species.

*238 (V:94-95, 1807) Le Toc.
Levaillant knew a specimen from Senegal. The plate shows a male. Compare RMNH 49 of the same bird.

*239 (V:96-97, 1807) Le Calao Javan.
This Asian species, also called 'Calao Annuaire', had been described in Levaillant's *Oiseaux Nouveaux* (pls.20-22). The plate shows a male. Compare UBL 111 of the same bird; and RMNH 50 showing the head and bill of an adult male.

*240 (V:98-99, 1807) Le Calao à Casque Plat.
The specimen depicted on this plate was later preserved in the Leiden museum according to Temminck (1824, pl.283). Levaillant had earlier described it in his *Oiseaux Nouveaux* pl.6. The caption on the plate is 'Bec à grandeur naturelle du Calao à casque plat.'

241 (V:104-105, 1807) Le Grand Indicateur.
Indicator indicator and *Indicator variegatus*. Levaillant said that he saw the bird first in the country of the Auteniquoi (12) and then further eastwards up to Caffraria (27). It was noticed by Sundevall (1857:50) that the 'male' (f.1) and the 'female' (f.2) of the plate actually belong to different species. This had led to some confusion in nomenclature, because the earlier authors did not make a distinction between the two species. Fig.1 (male) shows *Indicator indicator*, fig.2 (female) shows *Indicator variegatus*. The description was the basis of *Indicator major* Stephens (1815,IX(1):139). Compare UBL 65 of the same birds.

242 (V:106-107, 1807) Le Petit Indicateur.
Indicator minor. Levaillant found this bird at the Swartkops River (18) and Sundays River (20) and then during the rest of his first expedition until he reached the Camdeboo (35). Later he saw it again in the west between the Olifants River and the Orange River. The description was the basis of *Indicator minor* Stephens (1815,IX(1):140). The plate shows a male. Compare UBL 66 of the same bird.

243 (V:110-111, 1807) Le Martinet à Gorge Blanche.
Apus melba africanus. Levaillant found it numerous all over the Cape Province. The description was the basis of *Cypselus gutturalis* Vieillot (1818,XIX:422). The plate shows a male.

**244 f.1 (V:112, 1807) Le Martinet à Croupion Blanc.
? *Apus caffer*. Following Sundevall (1857:51), the bird on the plate cannot be recognised and is indeterminate. It has been accepted as such and the names given to this specimen cannot be used. Levaillant said that he found it common all over the Cape Province, and he probably meant to depict *Apus caffer*. The description was the basis of *Hirundo atra* Vieillot (1817,XIV:523), *Hirundo leucorhoa* Stephens (1817,X(1):98) and *Hirundo nigra* Vieillot (1820,II:525). The plate shows f.1 (above) a male of this species.

244 f.2 (V:113, 1807) Le Martinet Velocifère.
? *Psalidoprocne holomelas*. The bird on the plate cannot be identified with certainty (Sundevall 1857:51). Levaillant saw it in the southern Cape Province. The description was the basis of *Hirundo velox* Vieillot (1817,XIV:533) The figure shows a male.

245 f.1 (V:116-117, 1807) L'Hirondelle Rousseline.
Hirundo cucullata. Levaillant saw it in the Cape Province during the summer period. The plate shows fig.1 (above) a male.

*245 f.2 (V:118-119, 1807) L'Hirondelle à Front Roux.
This bird said to be from Senegal cannot be clearly identified (Sundevall 1857:51). The description was the basis of *Hirundo rufifrons* Vieillot (1817,XV:521). The figure shows a male.

246 f.1 (V:120, 1807) L'Hirondelle Fauve.
Hirundo fuligula. Levaillant saw it wherever he travelled. The plate shows a male on fig.1 (above).

246 f.2 (V:121, 1807) L'Hirondelle de Marais.
Riparia paludicola. Levaillant saw it wherever he travelled. He also called it 'La Brunette'. The description was the basis of *Hirundo paludicola* Vieillot (1817,XIV:511) and *Hirundo palustris* Stephens (1817,X(1):101). The figure shows a male.

**247 (V:122, 1807) L'Hirondelle Huppé
Levaillant claimed to have seen this bird in Namaqualand, but it is unknown there (Sundevall 1857:52). The description was the basis of *Hirunda cristata* Vieillot (1817,XIV:523). The plate shows a male.

Volume VI, Plates 248-300, 1808-1813.

The plates in this volume identify neither draughtman nor engraver, like in volume V.

248, 249 (VI:12-13, 1808) Le Pic Olive.
Mesopicos griseocephalus. Levaillant first saw it near the Duiwenhoks River (8) and then further to the east. Plate 248 shows a male, pl.249 a female. Compare UBL 107 and UBL 108 resembling the plates, in reverse.

250 (VI:14-15, 1808) Le Pic Tigré.
Campethera notata. This bird was first seen in the forests of the country of the Auteniquoi (12) and later more abundantly near the Gamtoos River (16) and in Caffraria (27). The plate shows a male.

251, 252 (VI:16-17, 1808) Le Pic à Doubles Moustaches.
Thripias namaquus. Levaillant saw it only in Caffraria (27). The description was the basis of *Picus mystaceus* Vieillot (1818,XXVI:73) and *Picus barbatus* Wilkes (1825,XX:401). Plate 251 shows a male,

pl.252 a female.

253 (VI:18-19, 1808) Le Petit Pic à Baguettes d'Or.

Dendropicos fuscescens. It was known all over the Cape Province. Levaillant first saw it at Grootvadersbos (7). The description was the basis of *Picus fuscescens* Vieillot (1818,XXVI:86) and *Picus erythrocephalus* Wilkes (1825,XX:402). The plate shows f.1 (above) a male, f.2 a female.

254, 255 (VI:20-23, 1808) Le Pic Laboureur.

Geocolaptes olivaceus. Levaillant found it in many parts of the Cape interior. The description was the basis of *Picus arator* Cuvier (1816,I:422). Plate 254 shows a male, pl.255 a female. Compare UBL 135 and UBL 136 of the same birds, in reverse.

256 (VI:27-28, 1808) Le Coliou Rayé.

Colius striatus. The bird was common near Cape Town, but also in the Zwartland (44) and elsewhere. The plate shows a male.

257 (VI:29-30, 1808) Le Coliou à Dos Blanc.

Colius colius. Levaillant saw this species at the Gamtoos River (16), at Bruintjeshoogte (21), the Sundays River (20) and in Caffraria (27). In the west he found it in many places between the Zwartland (44) and the Buffels River (37). The plate shows a male.

258 (VI:31-32, 1808) Le Coliou Quiriwa.

Urocolius indicus. Levaillant saw this bird in the eastern Cape Province, especially near the Gamtoos River (16). The description was the basis of *Colius erythromelon* Vieillot (1817,VII:378) and *Colius guiriva* Hartlaub (1849). The plate shows a male; the name of the bird is spelled 'Coliou Guiriwa'.

*259 (VI:33-34, 1808) Le Coliou Rayé à Gorge Noire.

Levaillant knew 6 specimens from Angola and Malymbe, two of which he bought. He kept one, and gave the other to Jacob Temminck (recorded in Temminck 1807:97, 228 'Coliou à gorge noire, de Malymbe'). The description was the basis of *Colius nigricollis* Vieillot (1817,VII:378).

260 (VI:36-37, 1808) Le Loriodor.

Oriolus auratus. According to Levaillant, he saw this species on migration in Caffraria (27). The description was the basis of *Oriolus auratus* Vieillot (1817,XVIII:194). The plate shows a male.

261, 262 (VI:38-39, 1808) Le Loriot Coudougnan.

Oriolus larvatus. It was common in the south and east of the Cape Province, between the Brak Rivers (11) and Caffraria (27). The description was the basis of *Oriolus africanus* Wilkes (1820,XVII:740) and *Oriolus coudougan* Temminck (1825). Plate 261 shows a male, pl.262 a female. Compare UBL 17 of the same species in a different attitude.

**263 (VI:40-42, 1808) Le Loriot Rieur.

Levaillant claimed to have seen this bird during its migration near the Great Fish River (23) and the Gamtoos River (16). The species is unknown in South Africa (Sundevall 1857:53). The plate shows a male.

264 (VI:49-50, 1808) Le Rameron.

Columba arquatrix. Levaillant found this pigeon in the country of the Auteniquoi (12). A male specimen collected by Levaillant was in the collection of Jacob Temminck. The plate shows a male; the name of the bird is given as 'Le Ramier Rameron'.

265 (VI:51, 1808) Le Ramier Roussard.

Columba guinea phaeonotus. The bird was commonly found all over the Cape Province. The plate shows a male. Compare RMNH 51 with the same depiction.

**266 (VI:52, 1808) Le Ramier Founingo.

The bird was known from Madagascar. Levaillant thought that he had seen it in February in Caffraria (27), but it has not been recorded again. The plate shows a male, with the name 'Le Ramier Founingo'.

**267 (VI:53-54, 1808) Le Ramier Hérissé.

This species was known from Mauritius. Levaillant stated that he saw it during migration in Great Namaqualand. Temminck (in Temminck & Knip 1809:50, pl.19) recorded for *Columba francix* that Levaillant collected a specimen during his travels. The plate shows a male.

268 (VI:56-57, 1808) La Tourterelle Blonde.

? *Streptopelia* sp. Levaillant found this bird in Great Namaqualand. The specimen depicted on the plate resembles *Streptopelia semitorquata australis*, which does not now occur in that locality, and it is larger than *S.capicola* while Levaillant said that it was smaller. The plate shows a male. Compare UBL 208 with the same depiction.

In the text to this plate, Levaillant mentioned another species, the 'Tortelduyf', *Streptopelia capicola*. It was very abundant in Cape Town and the surrounding region. Levaillant saw so many, that he forgot to take one to Europe, for which reason he could not illustrate it.

269 (VI:58, 1808) La Tourterelle à Masque Blanc.

Aplopelia larvata. Levaillant saw it in the country of the Auteniquoi (12). He gave one specimen to Jacob Temminck, listed by Temminck (1807:144, 254, no.319): 'Tourterelle pourprée, Pays d'Auteniquois'. The plate shows a male.

270 (VI:59, 1808) La Tourterelle Maillée.

Streptopelia senegalensis. This species was found in different places north of the Kamies Mountains and again north of the Orange River. Levaillant collected several specimens, one of which he gave to Jacob Temminck. The latter is not found in Temminck (1807), but it is mentioned by Temminck & Knip (1809:100, pl.45). The plate shows a male.

271 (VI:60, 1808) La Tourterelle Emeraudine.

Turtur chalcospilos. The bird was common near the Gamtoos River (16), near the Van Stadens River (17), near the Little and Great Fish Rivers (22, 23) and in Caffraria (27). Jacob Temminck had a male specimen, Louis Dufresne in Paris a female (Temminck & Knip 1809:83). The plate shows a male. Compare UBL 145 of the same depiction, in reverse.

272 (VI:61, 1809) La Tourterelle Tambourette.

Turtur tympanistria. It occurred in the same places as the species of plate 271. The plate shows a male. Compare UBL 48 with the same depiction.

273-275 (VI:62-63, 1809) La Tourtelette.

Oena capensis. The species was common wherever Levaillant travelled. Plate 273 shows a male, pl.274 a female, pl.275 a young male; the name is given as 'La Tourterelle à Cravatte Noire'.

**276, 277 (VI:66-67, 1809) Le Colombar.

Levaillant claimed that he saw it north of the Orange River. The species has not been recorded from that region again. The two animals on the plates might in fact belong to different species (Gray 1849, Bonaparte 1850,II:7). Plate 276 shows a male, pl.277 a female, with the name as 'Le Colombar à Epaulettes Violettes'. Compare UBL 224 and UBL 225 with the same depictions.

**278 (VI:70-72, 1810) Le Colombigalline.

Levaillant said that he saw it in Namaqualand. Temminck & Knip (1810:19, pl.11) illustrated a specimen in Levaillant's collection. Sundevall (1857:55) and Layard (1867) suggested that the animal was manufactured, basing their opinion on two specimens in the Leiden Museum (RMNH) 'ex collectione Le Vaillantii restant.' It is unlikely that these were the same specimens as shown on the plate. The plate shows a male, with the name spelled as 'Le Colombi-galline'.

*279 (VI:73-76, 1810) Le Colombigalline à Camail.

Levaillant saw 17 living specimens from the Nicobar islands in the aviary of A.Ameshoff near Amsterdam. The name of the animal is spelled 'Colombi-galline à Camail' on the plate.

*280 (VI:77-79, 1810) Le Colombi-Hocco.

Levaillant saw several specimens of this bird, from 'Banda', in the house of W.Boers in Cape Town. The plate shows a male. Compare RMNH 52 showing the head of a specimen supposedly in Raye's collection.

*281 (VI:80-81, 1810) Le Colombi-Perdrix à Cravate Noire.

A bird from Jamaica and Martinique. The plate shows a male.

*282 (VI:82, 1810) Le Colombi-Perdrix Roux-Violet.
It was known from the Antilles. Levaillant saw a specimen in the collection of Maugé. The plate shows a male.

**283 (VI:83-85, 1810) Le Colombi-Caille.
Levaillant said that he saw it in the mountains of Great Namaqualand. It has not been seen again, and it is believed that the specimen was manufactured (Sundevall 1857:55, Layard 1867). The plate shows a male.

*284 (VI:86, 1810) La Chevette Perlée.
Levaillant had seen a specimen from Senegal in the collection of Joan Raye (listed by Raye 1827, no.31). The description was the basis of *Strix perlata* Vieillot (1819,XXXIV:26). The plate shows a male.

*285 (VI:87, 1810) Le Pie-grièche Blanchot.
Levaillant saw a specimen from Senegal in the collection of Joan Raye (listed by Raye 1827, no.48). The description was the basis of *Lanius major* Wilkes (1812,XII:212), *Malaconotus blanchoti* Stephens (1826,XIII(2):161) and *Lanius icterus* Cuvier (1836:215). Compare RMNH 53 with the same depiction, in reverse. Mees (1970:67) commented on the type specimen and noted the existence of RMNH 53.

*286 (VI:88, 1810) La Pie-grièche Perrin.
Levaillant had seen specimens from Malymbe in the Paris Museum and in the collection of Vieillot.

287, 288 (VI:98-100, 1810) Le Grand Sucrier.
Promerops cafer. Levaillant saw this bird in Cape Town and in the southern and eastern Cape Province. He apparently tried to take some home alive, because he mentioned that this species was the one which 'j'ai conservées le plus longtems en mer dans mon retour en Europe'. Plate 287 shows a male, pl.288 a female, with the name given as 'Le grand sucrier ou Sucrier du Protéa.' Compare UBL 27 of the same species.

289, 290 (VI:101-104, 1810) Le Sucrier Malachite.
Nectarinia famosa. It was common in many parts of the Cape interior. Plate 289 f.1 (above) shows a male in summerdress, f.2 a male in winterdress, pl.290 f.1 (above) shows a male changing between winter- and summerdress, and f.2 a female.

**291 (VI:105-106, 1810) Le Sucrier Cardinalin.
Levaillant said that he saw this animal in Great Namaqualand. The specimen was probably manufactured (Sundevall 1857:56). The description was the basis of *Cinnyris cardinalinus* Vieillot (1820,II:599) and *Nectarinia cardinalis* Gray (1849, Appendix). The plate shows f.1 (above) a male, f.2 a female.

292 (VI:107-108, 1810) Le Sucrier Oranga.
Nectarinia violacea. Levaillant saw it in Cape Town and in the eastern part of the Cape province. The plate shows f.1 (above) a male, f.2 a female. Compare UBL 42.

**293 f.1 (VI:109-110, 1810) Le Sucrier Cossu.
This species was known from Senegal. Levaillant said that he found it in South Africa beyond the Great Fish River. The animal is shown on f.1 (above), a male.

**293 f.2 (VI:111-112, 1810) Le Sucrier Figuier.
Levaillant claimed that he saw this West African species in Great Namaqualand, but it has not been seen since. The description was the basis of *Cinnyris platurus* Vieillot (1819,XXXI:501). The figure shows a male.

294 (VI:113-114, 1810) Le Sucrier Velours.
Nectarinia amethystina. The bird occurred in the regions between the Groot Brak River (11) in the west and the Gamtoos River (16), especially in the country of the Auteniquoi (12). The description was the basis of *Cinnyris amethystina* Shaw (1811,VIII:195) and *Cinnyris auratifrons* Vieillot (1819,XXXI:502, only referring to f.2). The plate shows f.1 (above) a male, f.2 a female. Compare UBL 41 and KB 17 with the same depictions.

**295 f.1 (VI:115-116, 1812-13) Le Sucrier Eblouissant.
Levaillant said that he saw it in Great Namaqualand, but it is unknown from there (Sundevall 1857:57). The plate shows this species on f.1 (above), a male.

295 f.2 (VI:117-118, 1812-13) Le Sucrier-Protée.
Nectarinia senegalensis gutturalis. Levaillant recorded it from Caffraria (27). The plate shows f.2 (below) a male, with the name given as 'Sucrier-Protté.'

296 (VI:119, 1812-13) Le Sucrier Namaquois.
Nectarinia fusca. Levaillant found it in Great Namaqualand, and also called it 'Sucrier à Caleçon Blanc' in the text. The description was the basis of *Cinnyris fuscus* Vieillot (1819,XXXI:506). The plate shows f.1 (above) a male, f.2 a female.

**297 (VI:120, 1812-13) Le Sucrier Bronzé.
According to Levaillant, the bird was found at the Sundays River (20) and at the Swartkops River (18). It is unknown from South Africa. The description was the basis of *Cinnyris oeneus* Vieillot (1819,XXXI:495). The plate shows f.1 (above) a male, f.2 a female.

**298 (VI:121-122, 1812-13) Le Sucrion.
Levaillant stated that he saw it between the Louri and Van Stadens Rivers (17). It was probably a manufactured specimen (Sundevall 1857:57). The description was the basis of *Cinnyris pusillus* Vieillot (1819,XXXI:513). The plate shows f.1 (above) a male, f.2 a female.

299 (VI:123-124, 1812-13) Le Sucrier Gamtocin.
Anthreptes collaris. The specimen was found at the Gamtoos River (16). It was also called 'Le Sucrier à Gordon Bleu'. The description was the basis of *Cinnyris collaris* Vieillot (1819,XXXI:502). The plate shows f.1 (above) a male, f.2 a female.

300 (VI:125-128, 1812-13) Le Sucrier à Plastron Rouge.
Nectarinia afra. Levaillant found it in places east of the Groot Brak River (11). The description was the basis of *Cinnyris smaragdinus* Vieillot (1819,XXXI:509). The plate shows f.1 (above) a male, f.2 a female. Compare UBL 207 with the same depiction, in reverse.
In the text to this plate, Levaillant mentioned the 'Sucrier à Double Collier', *Nectarinia chalybea*. It was found near Cape Town.

12.5 THE ILLUSTRATED BIRD BOOKS

12.5.1 *The Oiseaux Nouveaux (1801-1802)*

Histoire Naturelle d'une partie d'oiseaux nouveaux et rares de l'Amérique et des Indes. Ouvrage destiné par l'auteur à fair partie de son Ornithologie d'Afrique. Paris & Amsterdam, J.E.Gabriel Dufour. 1 volume. An IX 1801-[1802].

This work was published in 8 parts. The dates and contents of each have not been detailed. However, each part contained 6 plates (Quérard 1833:268), while one must have had 7 plates to make a total of 49 plates. The dates were recorded by Ronsil (1948:297) and the Catalogue of the BMNH, London:

Parts 1-4: 1801; Parts 5-8: 1802.

According to Quérard (1833), there were three concurrent editions:

1. Folio, 'papier vélin, nom de Jésus, satiné' with both coloured and plain plates. Price 30 francs per installment.
Pp. [1-3], i-iii, 1-112, pls.1-49.
2. Quarto, 'papier vélin' with both coloured and plain plates. Price 18 francs per installment.
Pp. [i-ii], i-iv, 1-152, pls.1-49.
3. Quarto, 'papier fin, nom de Jésus', plain plates only. Price 6 francs per installment. Pagination as no.2.

The plates were printed by Langlois. Their French titles are found in Landwehr (1976:131). The work deals with the Bucerotidae (pp.1-71, pls.1-24) and Cotingidae (pp.73-150, pls. 25-49), none from South Africa. All species were identified by

G.R.Gray (1849, appendix p.42). Two copies with additional drawings existed. One from the library of Joan Raye, described in 12.7.2, is preserved in the library of Leiden University. The other, said to contain 11 original drawings of the heads of different birds, lifesize, was sold by Louis Dufresne in 1819 to William Macdonald. Its whereabouts are unknown.

Bokhorst (1973a:18) mentioned two works by Levaillant entitled 'Histoire naturelle des cotingas et des todiers' and 'Histoire naturelle des calaos'. The same titles are recorded, for instance, by Gillette (1845) with the date 1804 for the first one. Considering the similarity in content, it is likely that these references describe the present book, although it may be a later re-issue with different title pages.

12.5.2 *The Perroquets (1801-1805)*

Histoire Naturelle des Perroquets. Paris, chez Levrault, Schoel et Cie; Strasbourg, Levrault. 2 volumes, dated 1804 and 1805.

These masterpieces were published in 24 issues between 1801 and 1805. Each issue (except one) contained 6 plates with accompanying text. In total 139 + 6 supplementary plates appeared. The issues were dated by Ronsil (1948:298), the Catalogue of the BMNH and Anker (1974:157). The most detailed reconstruction was provided by Stresemann (1953b:104-105) which is given here.

	I			II	
(1) Plates	1-5	1801	(13) plates	72-77	1803
(2)	6-11	1801	(14)	78-83	1803
(3)	12-17	?	(15)	84-89	1803
(4)	18-23	1802	(16)	90-95	1803
(5)	24-29	1802	(17)	96-101	1803
(6)	30-35	1802	(18)	102-107	1803
(7)	36-41	1802	(19)	108-113	1804
(8)	42-47	1802	(20)	114-119	1804
(9)	48-53	?	(21)	120-125	1804
(10)	54-59	1803	(22)	126-131	?
(11)	60-65	1803	(23)	132-137	1805
(12)	66-71,2(bis)	1803	(24)	138, 139, 95(bis), 98(bis), 107(bis), 108(bis), 110(bis)	1805

The title-page of volume I is either dated 'An IX' (1801) or 'An XII' (1804), while volume II has 'An XIII' (1805). There were three concurrent editions, presumably all with both coloured and plain plates. Prices stated follow Quérard (1833).

1. Large Quarto. Total price 432 francs.
   I: [i-viii], 1-203, pls. 1-71, 2 (bis)
   II: [i-iii], 1-175, pls. 72-139 + 5 suppl. plates.
2. Folio. Total price 720 francs.
   I: [i-viii], 1-135
   II: 1-112, (1). Plates as (1) above.
3. Very large folio (Atlas format).
   Pagination as (2) above. Only 12 copies were produced. One of these is known from the library of Joan Raye (12.7.3), in Leiden University Library.

The plates were drawn by Barraband, engraved by different artists and printed at the Imprimerie de Langlois, 'sous la direction de Bouquet, professeur de dessin au Prytanée de Paris.' The book is dedicated to B.G.E.L.Lacépède. The parrots (Psittacidae) treated were all named by G.R.Gray (1849, appendix pp.40-41) and Kuhl (1820a:102-104).

The *Histoire Naturelle des Perroquets* mentioned only one South African species, on plates 130-131.

130, 131 (II: 91-97, 1804-1805) Perroquet à Franges Souci.
Poicephalus robustus. Plate 130 depicted the male, pl.131 a variety. Pl.130 is known as watercolour, all in reverse: UBL 58, KB 26 and one added to a copy of the book in the library of the University of Leiden (cf. 12.7.3). Levaillant said that he had only seen this parrot in South Africa, in the southern and eastern Cape Province between the Brak Rivers (11) and Caffraria (27). He brought many specimens back to Europe, some of which he gave to Temminck, Raye, Holthuysen, Boers and to the national museum in Paris (see 12.15). Plate 131 showed a 'variety' which died on the return journey and which he gave to Temminck. This plate was the basis of *Psittacus levaillantii* Latham (1809:126).

12.5.3 *The Oiseaux de Paradis (1801-1806)*

Histoire Naturelle des Oiseaux de Paradis et des Rolliers suivie de celle des Toucans et des Barbus. Paris, Denné le jeune & Perlet. 2 volumes, 1806.

These two volumes can be seen as a unity with a third treated below (12.5.4) with a different title. The covering title of all three volumes is sometimes recorded as 'Histoire Naturelle des Oiseaux de Paradis, des Toucans et des Barbus; suivie de celle des Promerops, Guêpiers, et des Couroucous' (3 volumes).

The book consisting of vols. I-II was issued in 19 parts each with 6 plates and text (total 114 plates). The dates of the issues were recorded by Ronsil (1948:298) and the Catalogue of the BMNH, as follows:

Parts 1-2: 1801; Parts 3-5: 1802; Parts 6-12: 1803; Parts 13-14: 1804; Parts 15-19: ?1806.

I have only found particulars about a folio edition, while 2 copies only were produced in Atlas format on parchment paper. Balis (1968:80) stated the presence of a large quarto edition. The plates are always present in both plain and coloured states together. The price was 30 francs per livraison or 72 francs for copies on 'papier grand aigle' (Brunet 1862, col.1033).

1. Folio
   I: [i-iii], 1-153, [i], plates 1-13, 16[= 14], 15-56
   II: [i-iii], 1-136, plates 1-18, 18[= 19], 20-37, A, 38-57.

The plates were engraved after drawings by Barraband. The names of the engravers are given as Perée, Gremilliet and Bouquet. They were printed by Langlois and Rousset. The different birds treated in these volumes were identified by G.R.Gray (1849, appendix p.41). Stresemann (1954:277) placed this work in an historical context, showing how little was known about the birds of paradise at that time. Many specimens then present in collections were incomplete lacking wings and feet.

An aquarel signed 'Barraband' on the tree trunk is in the Artis-Library, Amsterdam. The Dutch caption states 'Zwarte Javaanse gaai met witte kraag'. Probably it was the original for plate 42 in vol.I which is in reverse compared with the drawing. Plate 42 shows 'Le Geai noir à collier blanc' seen in the collection of Temminck.

In the *Oiseaux de Paradis* there were 6 species said to occur in South Africa, 3 rollers in volume I and 3 barbets in volume II.

I, 25 (pp.75-77, 1802) Rollier à Long Brins d'Afrique.
Coracias caudata. The same depiction is found on UBL 226. Levail-

lant had one specimen collected north of the Orange River.

I, 27-29 (pp.80-85, 1802) Rollier Varié ou le Cuit.

Coracias naevia. Levaillant saw it in Caffraria (27) and in Great Namaqualand (63).

* I, 30 (pp.86-87, 1802) Rollier à Masque Noir.

Levaillant did not find this species in South Africa, but Jacob Temminck had a specimen supposedly received from the Cape of Good Hope. It does not occur there (Stresemann 1953b:81, 85).

** II, 19 (pp.53-54, 1804) Barbican.

Lybius torquatus. Levaillant thought that he had seen it as a migrant in Great Namaqualand. It is not known from there. Compare UBL 209.

II, 29-31 (pp.66-72, 1806) Barbu à Gorge Noire.

Tricholaema leucomelas. Levaillant found this bird commonly everywhere in South Africa. It was first seen at the Gamtoos River (16) and from there eastwards to Caffraria (27), and from the Nameroo (53) and the Kamies mountains northwards to Great Namaqualand (63). Plate 29 showed a male, pl.30 a female and pl.31 a very old male. Compare UBL 53 f.2 and KB 22 f.1 depicting the 'grand barbu' of pl.29.

In the text to this species, Levaillant suggested that the 'Barbu Rubicon' from Africa shown on the supplementary plate D in volume III (Promerops, see below) might belong to this species.

II, 32 (pp.73-74, 1806) Barbion.

Pogoniulus pusillus. Levaillant saw this small barbet in the same regions as the 'barbu à gorge noire' of plates 29-31. This is unlikely because today it only occurs in the eastern Cape Province. Levaillant took 14 specimens to Europe which he distributed to his friends, of which were recorded those given to Temminck (1807:56) and Raye (1827, no.763).

12.5.4 *The Promerops (1807-1818)*

Histoire Naturelle des Promerops, et des Guêpiers, faisant suite à celle des Oiseaux de Paradis. Paris, Denné le jeune. 1 volume dated 1807.

The remarks given under 12.5.3 also apply here. There was only a folio edition, probably with 2 copies in atlas format. The three parts of the book treating the Promerops, Guêpiers and Couroucous et Touracos, are paginated separately.

1. Folio
Part 1, Des Promerops, pp.[i-vi], 1-81, pls.1-22, 22bis (=23), 24-32.
Part 2, Des Guêpiers, pp.1-67, pls.1-20, 6(bis)
Part 3, Des Couroucous et des Touracos, pp.1-52, [1-2], pls.1-20, A,AA,B-H,K,L.

There were 14 issues (nos.20-34) in this volume each with 6 plates and text. The precise distribution of the plates in each issue is unknown. According to the *Bibliographie de l'Empire Français*, II(1813):89,406, the 24th livraison of 1813 had 5 plates and was issued in 375 copies, while the 26th livraison of 1813 had 6 plates and was produced in 500 copies. The price was 48 francs 'petit papier' and 96 francs 'grand papier'. The issues can be dated following the Catalogue of the BMNH, London: Parts 20-21: ? (Possibly 1807, as appearing on title-page); Part 22: 1809; Part 23: ?; Parts 24-26: 1813; Parts 27-33: ?

The last issue appeared either in 1816 or 1818. The erratic dates show how difficult it was for Levaillant to finish this work.

There were 15 species stated to occur in South Africa included in the three parts of this work, as follows.

Promerops 1-3 (pp.8-12, 1807) Promerops Mocqueur.

Phoeniculus purpureus. Levaillant saw this bird between the Brak Rivers (11) and Caffraria (27). He also called it 'le Promerops à Bec Rouge.' Plate 1 depicted a male, pl.2 a female, pl.3 a young. Compare UBL 109 and KB 43 showing the specimen of plate 1.

Promerops 5,6 (pp.15-17, 1807) Promerops Namaquois.

Phoeniculus cyanomelas. It was only seen north of the Orange River. The description is the sole basis of *Falcinellus cyanomelas* proposed by Vieillot (1819,XXVIII:165). compare UBL 191, 192.

** Promerops 7 (pp.18-19, 1807) Promerops Azure.

Levaillant claimed to have seen it near the Swart Doorn River (52). It has not been recorded from South Africa again. The plate showed a male.

Promerops 22 (pp.53-55, 1809-13) Promerops Marcheur Houpoup.

Upupa epops. Levaillant saw the hoopoe in South Africa but did not mention precise localities. Because he regarded it as conspecific with the European specimens, it was one of the latter which was figured on this plate 22.

Promerops 23 (pp.56-58, 1809-13) Promerops Marcheur Largup.

Upupa epops minor. Levaillant saw it in Caffraria (27). The plate showed a male.

Promerops 32 (pp.77-78, 1813) Promépic.

Trachyphonus vaillantii. Levaillant saw only one specimen in South Africa, which was killed by Klaas, the Hottentot who accompanied him, in an unrecorded locality. The plate of a male is the sole basis of *Trachyphonus vaillantii* Ranzani (1821, III(2):159).

Guêpiers 1,2 (pp.21-23, 1813) Guêpier Vulgaire.

Merops apiaster. Levaillant figured a European specimen, but he said that he had seen it also in South Africa. The plates stated its name as 'Le Guêpier vulgaire d'Afrique', showing a male on pl.1 and a young on pl.2. They were drawn by Barraband, engraved by Gremilliet. Compare UBL 128 and 129 of a male and female of this species.

** Guêpiers 3 (pp.24-25, 1813) Guêpier Rose à Tête Bleue.

This species was known from Nubia and Senegal. Levaillant claimed to have seen it migrating in Great Namaqualand, where it does not occur. The plate shows a male, drawn by Barraband, engraved by Gremilliet.

Guêpiers 8 (pp.35-36, 1813) Guêpier à Queue Fourchue.

Merops hirundineus. Levaillant also called it 'Guêpier Tawa' following the name used in Great Namaqualand, north of the Orange River, where it was found. Levaillant returned to Europe with 85 specimens of this bird. The description was the basis of *Merops hirundinaceus* Vieillot (1817,XIV:21) and *Merops tawa* Ranzani (1822,III(3):123). The plate shows a male, drawn by Barraband, engraved by Gremilliet. Compare UBL 190 of the same species.

** Guêpiers 10 (pp.39-41, 1813) Guêpier à Gorge Bleue.

This bird is not known from South Africa. Levaillant knew its occurrence in India and Africa, but claimed to have seen it migrating in Caffraria (27).

** Guêpiers 12 (pp.45-46, 1813-18) Guêpier Marron et Bleu.

This bird is unknown from South Africa. Levaillant said to have seen it during its passage, lasting 15 days, in Caffraria (27).

Guêpiers 17 (pp.53-54, 1813-18) Guêpier Minule.

Merops pusillus. Levaillant saw it during its migration in South Africa. The plate of a male was drawn by Auguste, engraved by Bouquet.

Guêpiers 19 (pp.57-58, 1813-18) Guêpier Rousse Tête.

Merops superciliosus. It was seen during migration in Caffraria (27). The plate recorded another name, 'Le Guêpier Bonelli, mâle'; it was drawn by Auguste and engraved by Milleroy. This description was the basis of *Merops ruficapillus* Vieillot (1817,XIV:23), see Mackworth-Praed & Grant (1938a). Compare UBL 227

Couroucous 10, 11 (p.16, 1813-18) Couroucou à Ventre Rouge.

Apaloderma narina. It was also called 'Couroucou Narina.' It had been described and depicted in the *Oiseaux d'Afrique*, pls.228-229.

Couroucous 16 (pp.29-32, 1813-18) Touraco Louri.

Tauraco corythaix. Levaillant saw it in the country of the Auteniquoi (12) and later in other places during his travels. This description was the basis of *Spelectos corythaix* Wagler (1827, Spelectos 1). The plate shows a male, also depicted on UBL 23.

12.6 SIX COLLECTIONS OF WATERCOLOURS

The existence of six collections of watercolours or engravings in different depositories connected with the travels and the scientific activities of Levaillant is documented below. Only one of these collections had been recorded earlier in the literature i.e. the one preserved in the Library of Parliament, Cape Town, which was the subject of two volumes of essays edited by Quinton et al. (1973). The others were hitherto unknown. They are described in the following sections:

1. Watercolours in Cape Town (166 items) in 12.8,
2. Watercolours in the Library of the University of Leiden (242 items) in 12.9,
3. Watercolours in the Rijksmuseum van Natuurlijke Historie, Leiden (53 items) in 12.10,
4. Watercolours in the Koninklijke Bibliotheek, The Hague (44 items) in 12.11,
5. Watercolours in the Rijksprentenkabinet, Amsterdam (5 items) in 12.12,
6. Engravings in a volume in the Yale University Library, New Haven, (33 items) in 12.13.

It is remarkable that almost all this material is kept in Holland. While the history of the last two collections is unknown, the other four can all be traced to a private library in Amsterdam at the beginning of the 19th century. No pictorial representations connected with the work of Levaillant have yet been discovered in Paris, or elsewhere in France, England or Germany.

The watercolours in the Library of the University of Leiden (UBL) were bound into four volumes of Levaillant's published *Voyage* and *Second Voyage*. Those in the Rijksmuseum van Natuurlijke Historie, Leiden (RMNH) were bound into the six volumes of Levaillant's *Oiseaux d'Afrique*. Both these sets of books originally came from the library of Joan Raye (1737-1823), a merchant living in Amsterdam. The collection in Cape Town (CT) had also been tentatively traced to Raye (Bokhorst 1973b), which is substantiated below. The watercolours in the Koninklijke Bibliotheek, The Hague (KB) were bound in two volumes of Levaillant's *Voyage*. The source of that set has not been discovered, but it is remarkable that the drawings all appear too in the UBL collection, and moreover they were bound into the volumes at exactly the same places. That cannot have been a coincidence. The 5 watercolours in the Rijksprentenkabinet (RPK) and the volume in Yale were not connected with the others. In view of the great significance of Joan Raye for the history and origin of these collections, his life and his extensive library will be discussed in some detail in 12.7.

The origin and the authorship of the watercolours in the four collections connected with Joan Raye (CT, UBL, RMNH, KB) remain unsolved. Some general remarks may be made here. Joan Raye died on 19 March 1823, Levaillant in November 1824. Raye's books were auctioned in March 1825, Levaillant's papers in December 1825. Hence, Raye must have received the drawings before 1823 and they were not part of Levaillant's legacy. Some of the drawings obviously were made in Holland after specimens of birds in the collection of Raye without Levaillant's involvement, although the birds themselves may have been collected by Levaillant in South Africa (12.17). It is not clear if the other drawings too were made in Holland, or that they were made under the supervision of Levaillant in France. There is no evidence, but I would tend to think that the second possibility is more likely. In that case, I assume that Levaillant had the drawings made, after which he sent copies to Raye (and maybe to other friends in Holland). It may be further assumed that in some cases the engravings in the voyages and in the bird books were prepared after these drawings in France, of which those in the library of Joan Raye were copies. On the other hand, some of the birds depicted in Levaillant's works were stated to be in the collections of Raye or Temminck in Holland. The drawings of those specimens must first have been prepared in Holland and sent to Levaillant, unless the birds themselves were sent to France. The last suggestion is unlikely and unsupported by any known document.

In the case of the drawings made in France, they must be attributed to the various artists who are known to have worked for Levaillant (12.4.2). Bokhorst (1973c) showed that different 'hands' are recognisable on the drawings. It is not clear if any can be attributed to Levaillant himself. In none of his books or other writings there is any indication that he was accompanied by an artist during his expeditions into the South African interior. Still some subjects, landscapes and people for instance, must have been made on the spot. Possibly, Levaillant made sketches, which were later copied by more professional artists.

Levaillant cannot have been responsible for the captions of the drawings in the library of Raye. Some are too obviously incorrect (Bokhorst 1973c). Some of the drawings still show traces of pencilled remarks which have been rubbed out. The captions now visible probably were written by a clerk of Raye following the information in the books and the remarks found on the drawings. Many mistakes are evident, which shows that the content of the captions must be treated with some suspicion. Three collections have two drawings representing a caracal and a jackal (CT, UBL and KB). In all three cases the captions were transposed, i.e. the caracal is called a jackal and vice versa.

In the case of the drawings possibly prepared in Holland, it is not known which artist was responsible. A description of one of the books in the catalogue of C.J.Temminck's *library (1858:63,* see 12.7.3) attributed the drawings to 'P.Barbiers'. There were several artists with that name working in Holland between 1790 and 1820: Pieter Barbiers (1749-1842), Pieter Barbiers Bzn (1772-1837) and his son with the same name (1798-1848). None of these is known to have made bird drawings (Scheen 1969:50). Another name found on some drawings was J.L.Prevost, who was probably a Frenchman (not listed by Scheen 1969 in the catalogue of Dutch artists).

12.7 JOAN RAYE AND HIS LIBRARY

Levaillant's best Dutch friend and sponsor was Joan Raye, Seigneur de Breukelerwaert (1737-1823). Van Benthem Jutting (1964:178), with the assistance of the Municipal Archives of Amsterdam, recorded some details about his life. He was born in Suriname on 21 November 1737, some months after his father's decease. From 1747 onwards he lived in Holland to go to school. He studied law at the University of Leiden. There are different indications of when he was there. Van Benthem Jutting (1964:178) gives the year as 1777. This does not correspond with a dissertation by Joan Raye entitled 'De Asylis' *submitted* on 4 April 1760. However, the *Album Studiosorum* of the Leiden University (1875:1107) recorded the enrollment on 3 December 1771 of one 'Joannes Raye van Breukelerwaert, Surinamensis'.



From 1765 to 1769 Raye was absent from Holland. He may have been employed by the Dutch embassy in Constantinople, Turkey (Van Benthem Jutting 1964). At the same time, however, he is known to have travelled widely during those years in Germany, Greece, Turkey, Italy and France. This appears from a manuscript first recorded by Zoozman (1916:41) and presently preserved in the Koninklijke Bibliotheek in The Hague. It consists of four volumes and gives the particulars of Raye's journeys. In 1789, Raye was living in Utrecht where he was visited by Ireland (1796,I:185): 'Mr.Van Breukelwaerd's collection of pictures ... is selected with taste, and his collection of natural curiosities is not inferior.' Later he moved to Amsterdam, first staying on the Heerengracht no.452, in 1804 moving to no.575. Raye remained unmarried and died on 19 March 1823. His natural history collection will be discussed in 12.17.

Many people would have enjoyed browsing through the bookshelves of Raye's library. It was quite extensive and maintained in good taste. Happily we have some idea about its contents from the catalogue which was prepared for its auction on 28 March 1825. Three copies are known to exist, two in the Koninklijke Bibliotheek, The Hague with different title pages, and one in the collection of the Vereeniging voor de belangen van de boekhandel (part of the Amsterdam University Library) without title page. Each copy was annotated with the prices paid, but the buyers were not stated. Probably the books were widely dispersed. It is known that C.J.Temminck bought some, as they appear again in the catalogue of his library auctioned in 1858. Some others, mentioned below, are now in the University libraries of Leiden and Amsterdam, and in the Rijksmuseum van Natuurlijke Historie, Leiden (the latter probably via Temminck). By accident I saw Raye's copy of the *Zoophylacium* by Gronovius (1763) in the University Library of Utrecht.

Raye's library not just contained a good selection of natural history books. In many cases, Raye added plates to supplement the contents. Van Benthem Jutting (1964) commented on his copy, now in the Artis library, Amsterdam, of the '*Conchilien-Cabinett*' by F.M.Regenfuss (1769). Raye had added the otherwise unknown text of the second volume (Raye 1825, folio no.54, sold for Hfl.365, also in Temminck 1858:71, no.1230). Many such books were, of course, both unique and extremely valuable.

The catalogue of the auction of Raye's library on 28 March 1825 listed a number of natural history books with added drawings, as well as a few collections of drawings or watercolours without text. Many of these were connected with the work of Levaillant and they will be discussed in the following paragraphs, as follows:

Raye 1825, Folio 36 discussed in 12.10
Folio 37 discussed in 12.7.1
Folio 38 discussed in 12.7.2
Folio 39 discussed in 12.7.3
Folio 40 discussed in 12.7.4
Folio 70 discussed in 12.8
Quarto 139 discussed in 12.9.

The above books and collections are now known to exist. There is one other entry in Raye (1825) of a collection which has not been traced. This is the entry for *Quarto 25*:

Collection d'un nombre considérable d'oiseaux, supérieurement peints en couleurs d'après nature, des six volumes du voyage en Afrique par le Cap de Bonne Espérance, par le Vaillant, avec l'inscription de chaque oiseau. Manuscrit. 3 vol. dem.rel.

The price was not recorded. I have never seen a later reference to a collection similar to the one described. If these volumes were to be found again, possibly the contribution of Levaillant to South African ornithology would be due to another reappraisal.

12.7.1 *Raye's copy of Levaillant's Oiseaux Nouveaux*

In this section and in 12.7.2 to 12.7.4 I will highlight Raye's copies of Levaillant's books not related to South African fauna. The first of these appeared in Raye (1825) as follows:

Folio 37: 'Histoire Naturelle d'une partie d'oiseaux nouveaux et rares d'Amerique et des Indes, par le Vaillant. Paris, Dufour, 1801.'

There were added, according to the sales catalogue, 'un frontispiece et dessins d'oiseaux, de têtes et becs de grandeur naturelle des calaos à casque.' The book was sold for Hfl. 113,00. Apparently, it was not bought by C.J.Temminck, who had a copy of this title without additional drawings, sold in 1858 to 'Oltmans (N.A.M.)', i.e. Abraham Oltmans (1811-1873), curator of malacology in the Amsterdam zoological garden (N.A.M. is Natura Artis Magistra).

Raye's copy of the *Oiseaux Nouveaux* is presently in the Library of the University of Leiden (see Balis 1968:77). It is unknown how it came to be there. It shows the Ex Libris of Joan Raye on one of the first pages. Opposite the half-title, the following hand-written note is pasted in:

Cet exemplaire choisi, auquel ont d'été ajoutés plusieurs Dessins des Têtes et Becs de grandeur naturelle des Caläos à casque, a été retouché avec soin au pinceau sur differens individus de mon cabinet.
Raye de Breukelerwaert.

There were 18 additional drawings bound into this volume. They can only be briefly mentioned here. The birds shown on the drawings belong to the same species as those on the plates with which they were bound. The following drawings were added:

- A frontispiece opposite the title-page showing a landscape with a hornbill and a cotinga.
- Nine drawings of the heads and/or beaks of the species shown on plates 3, 13, 14, 15, 16, 19, 20, 22, and 23.
- Eight drawings showing the same depictions as the published plates, but they are surrounded by a golden edge, they have a manuscript title and all are in reverse compared with the plates. These were added to plates 24, 25, 26, 45, 46, 47, 48 and 49.

12.7.2 *Raye's copy of Levaillant's Perroquets*

This book from Raye's library appeared in the sales catalogue of 1825 as follows:

Folio 38: 'Histoire Naturelle des Perroquets, par le Vaillant. Paris, 1801-1805. 2 vols.'

The book was enriched by '93 dessins originaux des oiseaux qui y sont ajoutés, supérieurement peints à la main, ainsi que d'une frontispiece analogue au contenue de l'ouvrage.' It was sold for Hfl. 325,00. It was bought by C.J.Temminck, in whose sales catalogue a similar description is given (Temminck 1858:63, no.1068):

Exempl.retouchée d'après les Oiseaux du cabinet de Mr. Temminck et orné d'une collection de têtes d'oiseaux de grandeur naturelle, dessinées d'après nature par P.Barbiers et orné d'un beau dessin de frontispice, mais en revanche le titre imprimé du 1er volume manque et quelques planches et feuilles du second volume ont légèrement souffert par l'eau.

Barbiers must have been an artist working for Raye (12.6). The remark that the birds were from Temminck's cabinet may not have been authentic.

This copy is now preserved in the Library of the University of Leiden, as noted by Finsch (1867:16) and Balis (1968:78). There are 93 added drawings. All depict the same species as birds on the plates where they were bound. At the beginning of the first volume there is a manuscript note:

Cet Exemplaire soigné et retouché au pinceau est enrichi de 93 Dessins origineaux des Oiseaux qui y sont ajoutés peints à la main ainsi que d'un Titre analogue à l'Ouvrage. Les têtes et pieds des *Aras* y sont également peints de grandeur naturelle; tout cela rend cet exemplaire très précieux et on peut dire unique.

Raye de Breukelerwaert.

Volume I contains 53 additional drawings, as follows:

- A frontispiece showing a landscape with a parrot. The title of the book is written on a stone: 'Histoire Naturelle des Perroquets par F.Le Vaillant.'
- Eleven drawings depicting the heads and/or beaks of the species depicted on plates 2, 3, 4, 5, 6, 8, 11, 13, 30, 50 and 55.
- 41 drawings resembling the published plates, but the birds are in reverse, sometimes there are minor differences, and the title is in manuscript, added to plates 1, 10, 12, 13, 18, 19, 22, 27, 29, 31, 33, 41-52 and 54-71.

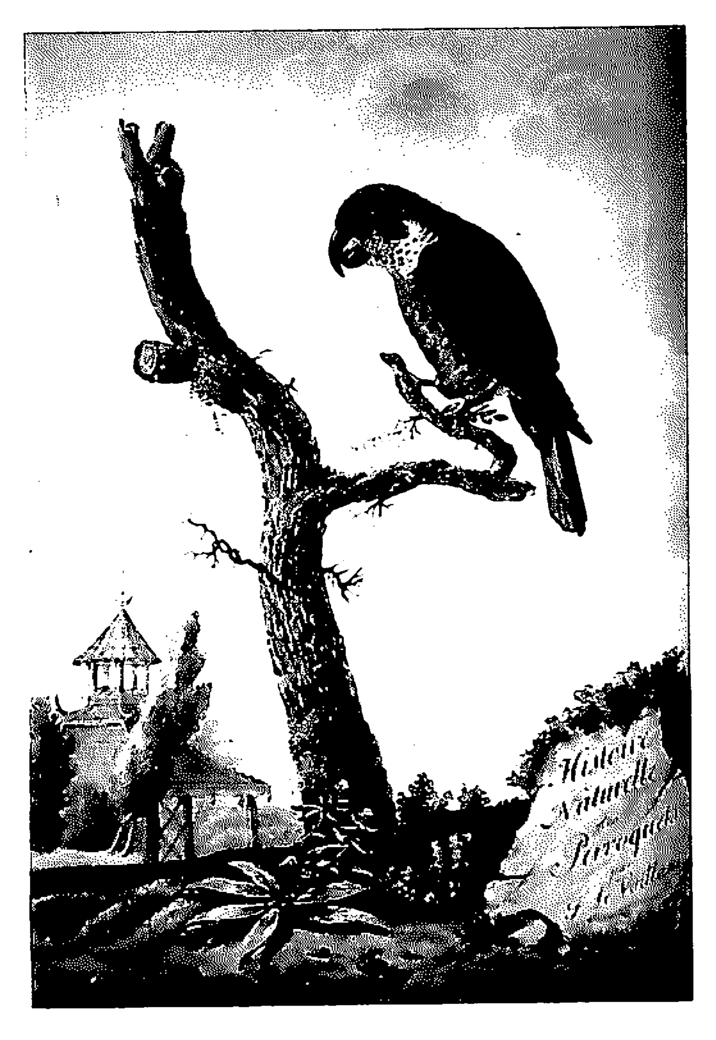


Fig. 97 Frontispiece added to Levaillant's *Histoire Naturelle des Perroquets*, from Joan Raye's collection, in the library of the University of Leiden.

Volume II contains 40 additional drawings, as follows:

- Three drawings depicting the heads and/or beaks of the species shown on plates 90, 92 and 127.
- 27 drawings resembling the published plates, in reverse, with handwritten titles, added to plates 72, 74, 75, 81, 83, 84, 88, 93, 95, 96, 98, 101, 104, 105, 106, 107, 111, 116, 117, 118, 119, 121, 122, 130, 133, 134 and 137.
- 10 drawings showing the same species as the published plates, but the birds are often shown in different positions, rarely reversed, found with plates 78, 94, 95, 110, 114, 115, 123, 124, *127 and 132.*

The drawings added to plates 95 and 96 of volume II both were signed by J.L.Prevost, probably another painter working for Raye (see 12.6).

12.7.3 *Raye's copy of Levaillant's Oiseaux de Paradis*

This book was listed in the sales catalogue of Raye's library:

Folio 39: 'Histoire Naturelle des Oiseaux de Paradis, des toucans et des barbus, par le Vaillant. Paris, 1806. 2 vols.'

It was enriched by 'un frontispiece analogue au contenu de l'ouvrage et plusieurs dessins des oiseaux supérieurement peints à la main.' The price was Hfl. 300,00. The same title was mentioned by Temminck (1858:63, no.1069), which copy had plates 'retouché d'après les oiseaux du cabinet de Mr.Temminck.' Raye's copy is now preserved in the Library of the University of Leiden. It contains his Ex Libris and the following manuscript note preceeding the title page:

Cet Exemplaire choisi dans lequel plusieurs Dessins ont été ajoutés, a été retouché au pinceau d'après divers originaux de mon cabinet.

Raye de Breukelerwaert.

This set has an additional five frontispieces to the different sections of the book. In volume I these frontispieces are entitled: 'Histoire Naturelle des Oiseaux de Paradis'; 'Histoire Naturelle des Rolliers' and 'Histoire Naturelle des Geais.' In volume II the added frontispieces are entitled 'Histoire des Toucans et des Barbus' and 'Histoire Naturelle des Jacamars par Mr F Le Vaillant.' There are another 4 drawings. In volume I those bound with plates 6 and 13 differ only in detail from the published plate, while that with plate 31 is almost the same. That also applies to the drawing added to plate 18 (= 19) of the section on the 'Barbus' in volume II.

12.7.4 *Raye's copy of Levaillant's Promerops*

The copy of this book from Raye's library was mentioned in the sales catalogue:

Folio 40: 'Histoire Naturelle des Promerops et des guêpiers, par le Vaillant. Paris, 1807.'

There were added 'douze dessins de Cacatoes peints en couleur.' The price was Hfl.180,00. The same title is found in Temminck (1858:63, no.1070) without indication that it contained additional drawings. Raye's copy is preserved in the Library of the University of Leiden (Balis 1968:80), but I have been unable to consult it.

12.8 THE WATERCOLOURS IN CAPE TOWN (CT)

The collection of watercolours acquired in 1963 by the Library

of Parliament, Cape Town, was the first to be rediscovered and to lead to a reappraisal of Levaillant's contributions. Its history was well treated by Bokhorst (1973b), but a few additions can here be made. The collection was first mentioned in the sales catalogue of the library of Joan Raye (1825), as follows:

Folio 70: 'Collection de CLXI dessins de vues, de peuples et d'animaux, des voyages dans l'intérieur de l'Afrique par le Cap de Bonne Espérance, dans les années 1780-1785, par le Vaillant, contenant 5 vol. en dem.rel.'

The entry was annotated in Raye (1825) stating that 'Les gravures sont supérieurement dessinées en couleurs, sous la direction de l'auteur, avec l'inscription de chaque dessin en manuscrit; exemplaire unique et très intéressant.' The price was Hfl. 430,00. It may have been bought at that time by Lambertus Vincentius Ledeboer (1795-1891), in the catalogue of whose library it was listed (Ledeboer 1878:296). The same collection had several owners from the end of the 19th century until 1963, when it was purchased by the Library of Parliament in a sale at Sotheby's (1963:52).

Raye (1825) mentioned CLXI or 161 drawings in 5 volumes. The collection now preserved in Cape Town comprises 165 drawings plus a title-page entitled: 'Dessins de vues, de peuples, et d'animaux des voyages de Mons.r Le Vaillant en Afrique. Dessins faits sous la Direction de L'Autheur.' Not too much importance should be attached to the difference between the 161 stated and the 166 present; it could be attributed to inaccurate counting or maybe to a misprint (CLXI instead of CLXVI).

The drawings in Cape Town were all illustrated in colour and discussed in a variety of essays in 2 volumes edited by Quinton et al. (1973). The subject matter of the drawings can be classified as follows:

Topographical	30	Birds	1
Farm at La Noue	1	Snakes	5
Ethnological	39	Insects	1
Mammals	41	Plants	47

The large number of plants and of African people on the drawings is remarkable. Most disappointing, of course, is the presence of only one bird, and that is not a very good drawing either. A detailed description of the collection does not need to be given here in view of the earlier analysis. The zoological subjects will be briefly enumerated below according to the French titles which are found in the beginning of each volume by Quinton et al. (1973). The numbers are those given there, preceded by the indication CT for easy distinction from the other collections.

Meester (1973) discussed the 41 mammal drawings. The UBL collection duplicates 25 (62%) which makes this CT set most significant (see 12.5.5). Meester noted that not all drawings were original. Four were copied from the publications by Vosmaer, i.e. the springbok, gnou, eland and kudu (CT 102, 84, 97 and 82). The giraffe skeleton (CT 89) is copied from Buffon (1789). Several other drawings do not depict South African species and might well be copies from unknown sources or new drawings from stuffed animals, like the elephant (CT 96) and the leopards (CT 71 and 73). The bat (CT 110) could also belong in this category. In Levaillant's time, it was not a great offence to copy illustrations from others. Levaillant may have intended to state his source in his text about the mammals which has not been recovered (and there is no proof that it was ever written).

The drawings in Cape Town, like those in UBL and KB, were known to have been in Holland at least since 1825. It is quite possible that the captions of the drawings were written there and it remains conjectural if Levaillant ever had a chance to review them. This cautions us in two directions. In the first place, we should not blame Levaillant for mistakes which may not have been his. Secondly, it would be wrong to attach too much importance to the localities or names given on the drawings. It all looks as if somebody (maybe in Holland) tried to match the drawings with the animals mentioned in Levaillant's Voyages adding the localities provided there. Those choices were not always the most fortunate.

CT 71 *Panthera onca* (?): 'Le Panthère.' It is unknown why Levaillant depicted this South American species. It is also shown on CT 73.

CT 72 *Panthera pardus*: 'Le léopard mâle de l'intérieur de l'Afrique.' It resembles UBL 4.

CT 73 *Panthera onca* (?): 'L'Once mâle de l'intérieur des Terres du Cap de Bonne Espérance.' The animal is lighter and more thickly furred than that on CT 71.

CT 74 *Lycaon pictus*: 'L'Once'. The French name is not known to apply to the wild dog.

CT 75 *Pelea capreolus*: 'Le Rheebock.' Like UBL 12.

CT 76 *Alcelaphus buselaphus*: 'Le Bubale ou le Harte Beest du Cap.' Like UBL 14.

CT 77 *Hippotragus leucophaeus*: 'Le Blauwe Bok ou Theiram'. Like UBL 13; this drawing was reproduced by Mohr (1967:2).

CT 78 *Papio ursinus*: 'Le Singe Kees'. Similar to UBL 15, 167, 202.

CT 79 *Syncerus caffer*: 'Le Buffle sauvage à cornes figurées de l'intérieur des terres du Cap de Bonne Espérance.' Like UBL 35.

CT 80 *Syncerus caffer*: 'Les cornes figurées du buffle sauvage ...' showing the horns only.

CT 81 *Vulpes chama*: 'Le Chien sauvage de l'intérieur des terres du Cap.'

CT 82 *Tragelaphus strepsiceros*: 'Le Coudou près du Sondag Rivier.' Like UBL 58 and the engraving published by Vosmaer (1783a, pl.16).

CT 83 (Kaffir ox.)

CT 84 *Connochaetes gnou*: 'La gazelle gnou dans l'intérieur des terres du Païs des Caffres.' Like UBL 98 and the engraving published by Vosmaer (1784a, pl.18).

CT 85 *Philantomba monticola*: 'Le Nommetje, la plus petite des gazelles du Cap, couleur bleuatre.' Like UBL 140.

CT 86 *Giraffa camelopardalis*: 'La giraffe mâle du Païs des Namaquois près de la Rivière d'Orange.' It resembles the engraving in Levaillant (1790:395).

CT 87 *Giraffa camelopardalis*: 'La giraffe femelle.' It resembles the engraving in Levaillant (1790:395).

CT 88 *Giraffa camelopardalis*: 'La tête de la giraffe, de grandeur moitié de nature.' It is like the published engraving in Levaillant (1795,II:58).

CT 89 *Giraffa camelopardalis*: 'La squelette de la Giraffe.' It was copied from the Paris edition of Buffon (1789, pl.82) which differs from the engraving of the giraffe skeleton in Allamand's edition published in Holland (1781, pl.20; cf. Rook-

maaker 1983a:84).

CT 90 *Giraffa camelopardalis*: 'Une jeune giraffe.'

CT 91 *Sylvicapra grimmia*: 'Le Duyker dans l'intérieur du Cap de Bonne Espérance.' Like UBL 139.

CT 92 *Sylvicapra grimmia*: 'De Kuif duyker, ou Gaselle Huppée avec une huppe entre les deux cornes.' Possibly *Cephalophus natalensis*.

CT 93 *Raphicerus melanotis*: 'Le Grys Bock.' Like UBL 138.

CT 94 *Raphicerus campestris*: 'Le Stein Bock.' Like UBL 137.

CT 95 *Oreotragus oreotragus*: 'Klip Springer ou Kainsi.' Like UBL 174.

CT 96 *Elephas maximus*: 'L'Eléphant Poeskop sans défense du Païs des Namaquois, très rare.' Like UBL 153. It depicts the Indian species, then thought to be conspecific with the African one.

CT 97 *Taurotragus oryx*: 'Le Kana des Hottentots ou l'Elan gazelle des montagnes près la Rivière Kautzi dans le Pais des Petits Namaquois.' Like UBL 113.

CT 98 Domestic cow: 'Boeuf de guerre des Namaquois', like UBL 219.

CT 99 *Hippopotamus amphibius*: 'Hippopotame femelle.' It resembles the engraving in Levaillant (1795,II:20, lower figure).

CT 100 *Hippopotamus amphibius*: 'Tête d'Hippopotame mâle des bords de l'Orange ou de la Grande Rivière près des Hordes des Grands Namaquois et des Cameniquois.' Like UBL 175 and the engraving published in Levaillant (1795,II:20, upper figure).

CT 101 *Diceros bicornis*: 'Le Rhinocéros bicorne de l'intérieur de l'Afrique.' Like UBL 210. This watercolour was reproduced by Rookmaaker (1985a, fig.20).

CT 102 *Antidorcas marsupialis*: 'Le Spring ou Parade Bok près du Sondag-Rivier et dans le païs des Koraquois.' Like UBL 238 and the engraving published by Vosmaer (1784b, pl.19).

CT 103 *Antidorcas marsupialis*: 'Le Spring ou Parade Bok ayant sa croupe blanchie.' Like UBL 239.

CT 104 *Canis mesomelas*: 'Le lynx roux des Forêts d'Auteniquois dans l'intérieur du Cap.' The caption was transposed from CT 106, exactly like in UBL 196.

CT 105 *Crocuta crocuta*: 'La Hyenne tachetée, nommée par les colons Loup tacheté, de la rivière Gamtos.' It resembles the engraving published by Levaillant (1795,II:84).

CT 106 *Felis caracal*: 'Le Jaccal de l'intérieur des terres du Cap de Bonne Espérance.' For the correct caption, see CT 104. Like UBL 195 with a similarly erroneous text.

CT 107 *Pedetes capensis*: 'La Gerboise nommé au Cap de Bonne Espérance Springhaas.' Like UBL 200.

CT 108 *Equus quagga*: 'Le Kwagga ou Ane rayé de l'intérieur du Cap.' Like UBL 203. It was reproduced by Gall (1981, fig.3).

CT 109 *Phacochoerus aethiopicus*: 'Sanglier à large groin des environs de la Rivière des Poissons.' Like UBL 229. It resembles the engraving in Levaillant (1795,II:240).

CT 110 Indeterminate bat: 'La Chauve souris à quatre oreilles des bords de la Rivière des Elephants.' Like UBL 231. The species cannot be identified with certainty.

CT 111 *Papio ursinus*: 'Le Singe noir à queue de cochon près la Rivière d'Orange.' It resembles the engraving in Levaillant (1795,II:268).

CT 112 *Phoenicopterus ruber roseus*: 'Le Phoenicoptère ou Flamingo près la Mossel Baye.' This is the only bird picture in the collection (Winterbottom 1973:167).

CT 113 *Bitis arietans*: 'Le Serpent Pofhadder serpent très venimeux de l'Afrique.' This and the following four watercolours depicting snakes were discussed by Skaife (1973:38-39).

CT 114 *Naja nivea*: 'Le Cooper capel slang, le serpent le plus venimeux de l'Afrique.'

CT 115 *Hemachatus haemachatus*: 'Le Serpent brancheur ou Spoog slang ...'

CT 116 *Dispholidus typus*: 'Le Boom Slang.'

CT 117 *Bitis cornuta*: 'Serpent cornu nommé Horens Mannetje par les colons et les Hottentots ...' It also depicts its opened jaw, rather like in the drawings of snakes present in the Gordon Atlas; it differs in other details.

12.9 THE WATERCOLOURS IN LEIDEN (UBL)

The library of the University of Leiden preserves four quarto volumes with the text of Levaillant's first and second voyages (signatures: 1370 D 1 to D 4). The first available reference was found in the catalogue of the sale of the library of Joan Raye in 1825, as follows:

Quarto 139: 'Voyage dans l'intérieur de l'Afrique par le Cap de Bonne Espérance, dans les années 1780-1785, par le Vaillant. Paris [Leroy] 1790, 2 vol. gr.pap. Second voyage dans l'intérieur de l'Afrique dans les années 1783-1785. Paris [H.J.Jansen], 1795, 2 vols. gr.pap.'

To the entry was added: 'Cet exemplaire d'une beauté et condition sans exemple, est imprimé sur papier vélin, avec doubles figures avant la lettre et en couleurs, les vignettes également coloriées, et en sus il a été joint un nombre considérable de dessins de paysages, d'animaux, et d'oiseaux soigneusement dessinés en couleurs d'après les originaux qui se trouvent dans le cabinet du défunt. Le texte et toutes les planches sont encadrées pour rendre l'exemplaire plus magnifique.' It was sold for Hfl. 225,00, a rather small amount compared with the illustrated bird books by Levaillant (see 12.7.1). Other sets of Levaillant's travels, however, then sold for only a few guilders. The buyer is not known, because the set does not occur in the sales catalogue of Temminck's library (1858). The set is now in the Leiden University and of course, it could have purchased the books direct in 1825.

The four volumes in this set were illustrated with the usual engravings with some differences compared with other known copies (a.b. below). There were a total of 242 added drawings, described in (c) below.

(a) *Engravings of first voyage*

All 12 engravings of the first edition (Paris, Leroy) are present while those added in the second edition of Desray do not appear. In many cases, especially in vol.I, the caption is written in ink and not printed. There are minor differences in the titles. The following engravings were included.

1. Campement dans le Païs des Grands Namaquois.

Two copies are present, a plain engraving with manuscript text as frontispiece to volume I, and another coloured *with* printed text as frontispiece to volume II. The coloured state again appears as frontispiece to the first volume of the second voyage.

2. Montagnes du Cap de Bonne Espérance (I,p.12)

Plain engraving with written caption as above. Also a coloured copy with the usual printed text.

3. Campement à Pampoen Crael (I,p.87)

The engraving is present in both plain and coloured copies with the aberrant title in manuscript.

4. Le Brave Hottentot Claes (I,p.109)

Only a coloured engraving with aberrant caption written in ink. The same applies to the next two engravings:

5. Le femme de Claes (I,p.134)

6. Narina, jeune Gonaquoise (I,p.186)

Another engraving is present in the volume, treated below as UBL 50 because it is otherwise only known as watercolour and has not been recorded from the published works.

The second volume of the first voyage has the usual 6 engravings and the frontispiece (1) added in colour. The other engravings, except (12) below, appear in both plain and coloured states. The coloured ones have the caption printed as usual. The captions of the plain ones may be given here.

7. Hottentot Gonaquoi. Eau Forte (II,p.198)

Plain engraving with written legend. The coloured copy also has the text in manuscript.

8. Le Caffre. Eau Forte. Mâle (II,p.337)

9. Le Caffre Femelle. Eau Forte (II,p.337)

10. Hottentote avec le prolongement. Eau Forte (II,p.370)

11. La Giraffe Femelle (II,p.395)

12. La Giraffe Mâle (II,p.395).

(b) *Engravings of the Second Voyage*

The engravings present in the two volumes of the second voyage are more usual. In volume I there are the 7 engravings as in the edition published by H.J.Jansen in 1795 (Ogilvie 1962, no.35). All are available in both plain and coloured states with printed captions. Two plates are bound in at the wrong place, i.e. 'Vue du Cap de Bonne Espérance' at p.56 instead of p.64, and 'Campement à la Horde de Klaas Baster' at p.102 instead of p.162. The frontispiece is added from the first voyage.

Volume II too has the usual 14 engravings, always in both plain and coloured states with printed legend (except the 'Sanglier' which is only coloured). The engraving at p.208 'Femme Houzouâna' lacks this caption although the other imprints are present. The engraving of the Oricou (p.315) is not the version with 'pl.XVIII' but it is a copy of plate 9 in the *Oiseaux d'Afrique* recording its painter (Reinold pt.) and engraver (Fessard sculp.).

(c) *The watercolours*

The 242 original watercolours in this set of 4 volumes are here described according to the place in which they are bound. They are numbered continuously from 1-242, preceded by UBL from their present depository. All watercolours have a yellow edge all around the depiction and handwritten captions. The plants were identified following Jordaan (1973) who wrote about those in the CT collection. The subject matter of the watercolours is very diverse, and not all species of birds shown are in fact African. This is similar to the situation found in the *Oiseaux d'Afrique*. Only the South African species of animals and plants are identified below, the others only when the identity was apparent.

To gain a good idea, it is useful to review the watercolours here according to subject matter.

Ethnological: There are 14 watercolours showing the people of South Africa and their utensils, i.e. UBL 50, 74, 85-92, 117, and 220-222. This is a much poorer representation than the 39 drawings in this category in Cape Town. Only three recorded here (UBL 88, 89, 91) are not present there and are also otherwise unknown. They show different utensils of the original inhabitants of the Cape.

Topographical: The nine watercolours showing South African landscapes (UBL 11, 36, 39, 51, 52, 56, 84, 104, 180) all are also present in Cape Town. The latter collection has a much fuller representation of the South African scenery associated with Levaillant's travels.

Stone: The only drawing of a stone (UBL 176) found in Great Namaqualand is not known elsewhere. It may have been painted after a specimen in Raye's collection.

Botanical: There are 18 watercolours of plants, i.e. UBL 6, 19, 105, 160-164, 166, 168-170, 179, 183, and 214-217. All are again present in Cape Town except UBL 168 which, however, depicts the same species as shown on UBL 169 and CT 133.

Mammalogical: Mammals are shown on 33 watercolours: UBL 4, 12-15, 35, 37, 98, 113, 137-140, 153, 156, 157, 167, 174, 175, 189, 194-196, 200, 202, 203, 210, 219, 229-231, 238 and 239. Of these, 28 are also represented in Cape Town. The additional species found in the UBL collection are the zebra (2 drawings), a striped hyena, a squirrel and there is another drawing of a giraffe. The Cape Town collection has a better representation of the mammals with 41 drawings.

Ornithological: The most significant component of the UBL watercolours is the representation of the birds. This is the category most under represented in the Cape Town collection comprising only one bird drawing. The UBL collection has ~~163~~ 167 watercolours of birds. These can be divided in 67 drawings of birds which were hitherto unknown from Levaillant's work, and 100 having been published by him, either in the *Oiseaux d'Afrique* (87) or in one of his other bird books (13). Many of them can be considered either the originals used for the published plates or copies thereof. It is unlikely that any drawing was prepared after the example of the published plate. It is, however, difficult to ascertain if the watercolours in the UBL collection were the actual drawings used to engrave the published plates. Some of the watercolours and plates are in reverse compared with each other, as one would expect. Some, however, are not. There are usually at least small differences between the drawings and the plates, especially in the branches on which the birds are perched or in the general background. Still, it appears acceptable to assume at least a common source.

Volume I

UBL 1 (p.20) *Fulmarus glacialoides*: 'Grande Mouette d'Afrique, de la Baye de Saldanha.' A gull or petrel standing on an island. The species is uncertain because the bill is differently coloured.

UBL 2 (p.20) *Sterna hirundo*: 'Hirondelle de mer brune: dans la Baye de Saldanha.'

UBL 3 (p.20) *Spheniscus demersus*: 'Pingouis ou Manchots des environs du Cap à bec tronqué.' There are an adult and a young, like KB 1. It differs from the engraving of this species in Levaillant 1797-98, I:41.

UBL 4 (p.32) *Panthera pardus*: 'Le Panthère Mâle, ou le



Fig. 98 Bluebock *(Hippotragus leucophaeus)*, Levaillant's drawing UBL 134.



Fig. 99 Palewinged starling *(Onychognathus nabouroup)*, Levaillant's drawing UBL 20.

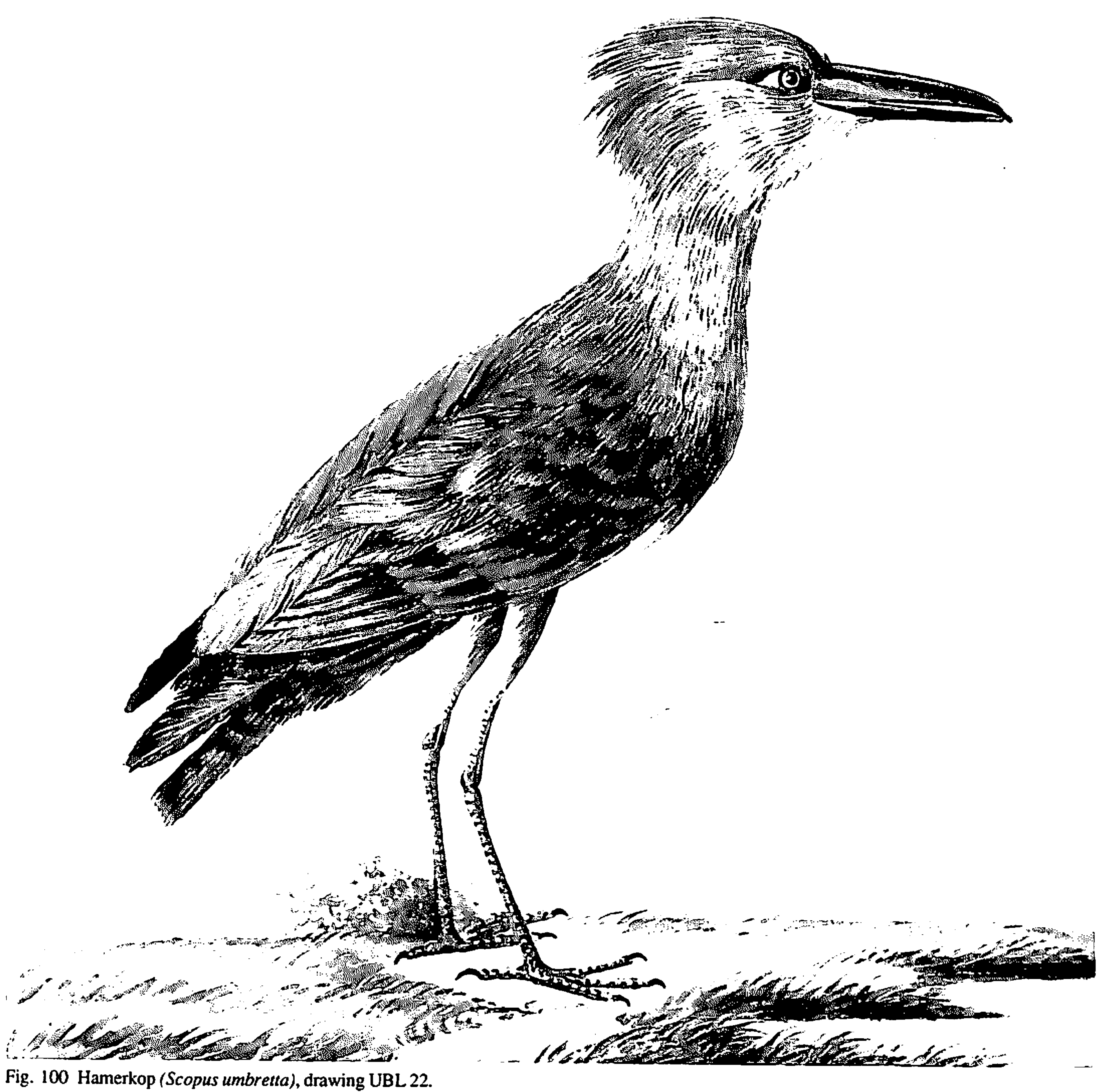


Fig. 100 Hamerkop *(Scopus umbretta)*, drawing UBL 22.

Garon des Hottentots.' Like CT 72 with a different caption.

UBL 5 (p.35) *Gyps coprotheres*: 'Le Vautour percnoptère, ou la Chasse Fiente, de la Montagne de la Table au Cap.' Like KB 2 and *Ois.Afr.* 10 (with different background).

UBL 6 (p.41) *Protea* sp.: 'La Belle Fleur du Protea argentea qui se trouve sur les montagnes du Lange Kloof. L'Etui de la Fleur quand la fleur est passée'. Like KB 3 and CT 121 (with slightly different caption).

UBL 7 (p.45) *Francolinus africanus*: 'Perdrix grise des environs du Cap de Bonne Espérance.' There is a green cornfield in the back.

UBL 8 (p.45) *Coturnix coturnix*: 'Caille vulgaire du Cap.'

UBL 9 (p.45) *Francolinus levaillantii*: 'Perdrix d'Afrique de l'intérieur des Terres du Cap.'

UBL 10 (p.46) *Pterocles namaqua*: 'La Caille à trois doigts de l'Afrique, près du Cap.'

UBL 11 (p.52) 'Le Chariot Maitre en marche attelé de dix boeufs, en quittant Le Cap de Bonne Espérance.' Folded. Like CT 2 and KB 4.

UBL 12 (p.55) *Pelea capreolus*: 'Le Rheebok Mâle; dans les environs du Cap.' Like CT 75.

UBL 13 (p.59) *Hippotragus leucophaeus*: 'Le Theiram

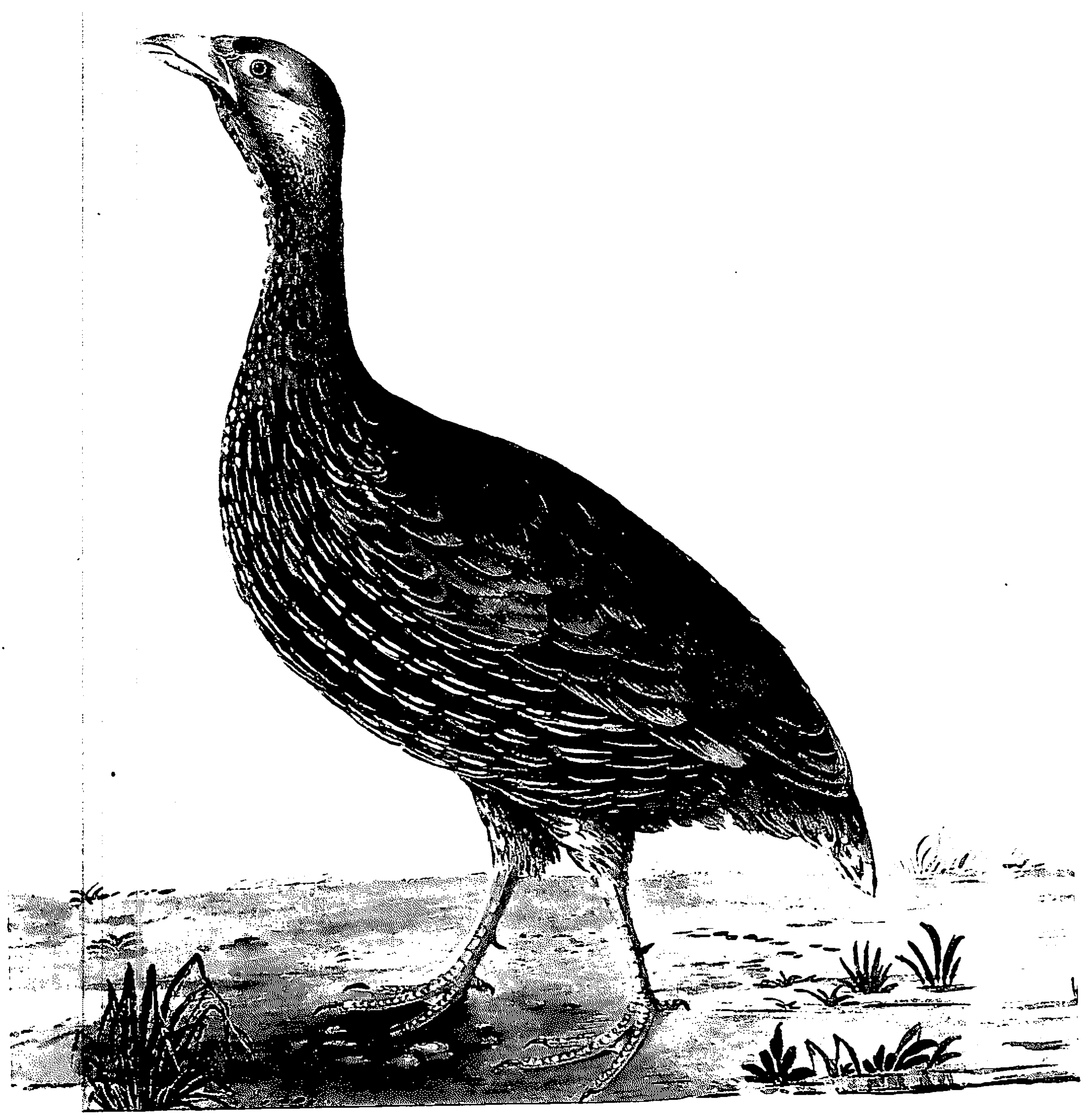


Fig. 101 Rednecked francolin *(Francolinus afer)*, drawing UBL 24.

Male, ou le Blauwe Bok, dans le Soete Melks Valey.' Like CT 77.

UBL 14 (p.61) *Alcelaphus buselaphus*: 'Le Bubale ou le Hartebeest du Cap, près du Breede Rivier.' Like CT 76.

UBL 15 (p.64) *Papio ursinus*: 'Le Singe Kees, compagnon de voyage de Mons. Le Vaillant.' Like CT 78; on UBL 167 and UBL 202 as 'Singe Kees.'

UBL 16 (p.71) *Parisoma subcaeruleum*: 'Le Grignet mâle et var: de la Fem: près de la Rivière Gouritz.' Almost identical to *Ois Afr.* pl. 126, not reversed.

UBL 17 (p.72) *Oriolus larvatus*: 'Le loriot coudougnan mâle.' The same species is depicted on *Ois Afr.* pl.261, but the birds differ, e.g. in the length of the wings.

UBL 18 (p.72) *Francolinus capensis*: 'Grande perdrix nommée Faisan près de la Rivière Gouritz.'

UBL 19 (p.75) *Cyrtanthus obliquus*: 'Une belle fleur, espèce de Lys, de Païs d'Auteniquoi.' Like CT 119 and KB 5.

UBL 20 (p.77) *Onychognathus nabouroup*:'Le Piegriach



Fig. 102 Bateleur *(Terathopius ecaudatus)*, drawing UBL 28.

du Païs d'Auteniquoi.' The same species is shown on UBL 181. The tip of the wing is not clearly red. Compare *Ois.Afr.* pl.91, on which the background differs, and where the locality is different.

UBL 21 (p.77) *Nilaus afer brubru* (f.1) and *Dryoscopus cubla*: '1. Le Gragra. 2. Le Cubla d'Afrique. Païs d'Auteniquoi.' The same birds are shown on UBL 71, and also present in the *Ois.Afr.* on two plates (71 and 72).

UBL 22 (p.77) *Scopus umbretta*: 'L'Ombrette huppé, du Païs d'Auteniquoi.'

UBL 23 (p.80) *Tauraco corythaix*: 'Le Touraco du Païs d'Auteniquoi.' Like KB 6; the same species is shown on UBL 228. This watercolour resembles the published engraving (Levaillant 1797-98:159) but the branch differs and the wing is lifted less high. The caption is written within the yellow edge.

UBL 24 (p.85) *Francolinus afer*: 'Francolin gorge nue, mâle nommé Faisan rouge, du Païs d'Auteniquoi'.

UBL 25 (p.88) *Saxicola torquata* (above) and *Oenanthe pileata*: 'Traquets d'Afrique du Païs d'Auteniquoi'. Two birds sitting on a branch with a few leaves.

UBL 26 (p.88) Not identified: 'Le choucou, du Païs d'Auteniquoi.' The same specimen is depicted in *Ois.Afr.* pl.38.

UBL 27 (p.88) *Promerops cafer*: 'Le sucrier à longue queue.' Like *Ois.Afr.* pl.288.

UBL 28 (p.90) *Terathopius ecaudatus*: 'Le Bateleur du Païs d'Auteniquoi et la Côte Natal.' Like KB 7; and *Ois.Afr.* pl.7 in reverse, with slight differences in the background.

UBL 29 (p.90) *Accipiter tachiro*: 'Le Tachiro crescerelle d'Afrique du Païs d'Auteniquoi.' Like *Ois.Afr.* pl.24 in reverse.

UBL 30 (p.90) *Elanus caeruleus*: 'Le Blac mâle ou le Petit Milan Musqué d'Afrique Païs d'Auteniquoi et des Bords du Sondag rivier.' Like KB 8; and *Ois.Afr.* pl.36 in reverse.

UBL 31 (p.90) *Melierax canorus*: 'Faucon chanteur d'Afrique. Païs d'Auteniquoi et de la Caffrerie.' Like *Ois.Afr.* pl.27 in reverse, with a different background.

UBL 32 (p.94) *Egretta garzetta*: 'Le petit Heron blanc, près



Fig. 103 Fish eagle *(Haliaeetus vocifer)*, drawing UBL 37.



Fig. 104 Narina trogon *(Apaloderma narina)*, drawing UBL 44.

de la Rivière Noire.' Like KB 9.

UBL 33 (p.94) *Egretta alba*: 'La grande Aigrette, de L'Afrique, près la Rivière Noire.' Like KB 10.

UBL 34 (p.94) *Caprimulgus pectoralis*: 'L'Engoulevent à collier, du Gamtoos Rivier, et Plettenberg.' Like KB 11; and *Ois.Afr.* pl.49 in reverse.

UBL 35 (p.96) *Syncerus caffer*: 'Le Buffle sauvage, près du Plettenbergs Baey, et de la grande Visch rivier.' Like KB 12 and CT 79 (with different colour).

UBL 36 (p.98) 'Vue de la Baye de Plettenberg. + L'Embouchure du Queur Boom. O L'Embourchure du Witte Drift qui se jette dans la première.' The indications + O are found on the watercolour. Like CT 4.

UBL 37 (p.101) *Haliaeetus vocifer*: 'Le Vocifer, Mâle, Balbusard d'Afrique dans les environs du Queur Boom des Bords de la Rivière d'Orange.' Like KB 13; and *Ois.Afr.* pl.4 in reverse, with different flowers.

UBL 38 (p.101) *Haliaeetus vocifer*: 'Le Vocifer femelle.' Like KB 14. The bird has a lighter colour than the male on UBL 37.

UBL 39 (p.111) 'Camp au Poort, où se fit la chasse aux Elephants.' Like KB 15 and CT 5.

UBL 40 (p.124) *Lamprotornis nitens*: 'Etourneau cuivré des Bois du Gamtos Rivier.' Like KB 16 and Yale 14.

UBL 41 (p.124) *Nectarinia amethystina*: 'Sucrier à gorge amétiste Mâle et Femelle du Gamtos Rivier, proche le Païs des Caffres.' Two figures, a male (above) and a female. Like KB 17; and *Ois.Afr.* pl.294.

UBL 42 (p.124) *Nectarinia violacea*: 'Sucrier mâle et femelle d'Afrique, des Bois du Gamtos Rivier.' Two figures of the male (above) and a female.

UBL 43 (p.124) *Apaloderma narina*: 'Le Couroucou Na-



Fig. 105 Black cuckooshrike *(Campephaga flava)*, drawing UBL 45.

rina Mâle des Bois du Gamtos Rivier et du Païs d'Auteniquoi et des Caffres.' Like KB 18, Yale 12; and *Ois.Afr.* pl.228 in reverse, with different branch in the background. The watercolour shows a male.

UBL 44 (p.124) *Apaloderma narina*: 'Le Couroucou Narina femelle.' Like Yale 13; and *Ois.Afr.* pl.229 in reverse, with a different branch.

UBL 45 (p.129) *Campephaga flava*: 'Le coucou rayé du Gamtos rivier, ou l'Echenilleur jaune.' Like *Ois.Afr.* pl.164 in reverse, with a slightly different branch.

UBL 46 (p.129) *Coracina caesia*: 'L'Echenilleur gris mâle du Gamtos Rivier.' The eye is shown red with a white gular

patch. Like *Ois.Afr.* pl.162, not reversed.

UBL 47 (p.129) *Onychognathus morio*: 'Le Rouxpenne du Gamtos Rivier.'

UBL 48 (p.129) *Turtur tympanistria*: 'Tourterelle à ventre blanc du Gamtos Rivier.'

UBL 49 (p.129) *Dicrurus adsimilis*: 'Le Drongo du Gamtos Rivier.' Like *Ois.Afr.* pl.167, not reversed; the branch differs.

UBL 50 (p.131) 'Capitaine Hottentot, en habit de ceremonie.' Like CT 34, KB 19 and Yale 15. This is a coloured engraving, with the caption in manuscript in ink.

UBL 51 (p.134) 'Passage du Swarte Kops Rivier'. Like KB 20 and CT 7. Folded, caption in ink.

UBL 52 (p.137) 'La Marche de la Caravane sur les Rochers et les montagnes près de la Caffrerie.' Like KB 21 and CT 11. Folded.

UBL 53 (p.140) *Pogoniulus pusillus* (above) and *Tricholaema leucomelas*: 'Le petit barbu. Le grand barbu, du Païs des Caffres.' Like KB 22 (with a different caption).

UBL 54 (p.142) *Lioptilus nigricapillus* (1) and *Cossypha caffra*: '1. La Calotte noire du Cap. 2. Le Jean Frederic près la Rivière Sondag.' The lower figure (2) is like *Ois.Afr.* pl.111 f.1, not reversed.

UBL 55 (p.142) *Vidua purpurascens* (1, above) and *Ploceus velatus* (?): 'Le Combasou, et le Seissje d'Afrique, près la Rivière Sondag.'

UBL 56 (p.145) 'Halte dans un Crael abandonné.' Like KB 24 and CT 25.

UBL 57 (p.163) *Tragelaphus strepsiceros*: 'Le Coudou de l'intérieur de l'Afrique près du Sondag Rivier.' Like KB 25 and CT 82. The depiction was copied from Vosmaer (1783a, pl.16), not reversed, with a different background.

UBL 58 (p.167) *Poicephalus robustus*: 'Le beau perroquet à franges soucis du Païs des Caffres.' Like KB 26.

UBL 59 (p.169) *Caprimulgus europaeus*: 'L'Engoulevent ou Crapand volant à queue fourchue du Païs des Caffres.' Like KB 27.

UBL 60 (p.169) *Cuculus solitarius*: 'Le coucou solitaire mâle.' Like KB 28; and *Ois.Afr.* pl.206, in reverse, with different branch.

UBL 61 (p.169) *Cuculus gularis*: 'Le coucou vulgaire d'Afrique, ou le coucou criard.' Like *Ois.Afr.* pl.200, in reverse, with different background.

UBL 62 (p.169) *Chrysococcyx caprius*: 'Le coucou verd doré, ou le coucou Dideric, à Koks Krael près du Sondag Rivier.' Like KB 29; and *Ois.Afr.* pl.210, in reverse. Cf. UBL 96 of the same species.

UBL 63 (p.170) *Cuculus canorus*: 'Le coucou vulgaire d'Afrique, du Camdebo, variété.' Folded from folio to quarto size. On the tree trunk there is the signature of J.G.Prêtre.

UBL 64 (p.182) *Indicator indicator*: 'Le coucou indicateur, M.du Païs des Caffres.'

UBL 65 (p.182) *Indicator indicator* (above) and *Indicator variegatus*: 'Le grand indicateur Mâle et Femelle. Païs des Caffres.' Like *Ois.Afr.* pl.241.

UBL 66 (p.183) *Indicator minor*: 'Le petit indicateur Mâle.' Like *Ois.Afr.* pl.242.

UBL 67 (p.184) ? *Aquila verreauxii*: 'L'Aigle noir ou le Coffrin.' Like *Ois.Afr.* pl.6, in reverse, with different background. The bird is considered indeterminate, but may represent the black eagle.

UBL 68 (p.184) *Haliaeetus leucogaster*: 'Le Blagre aigle d'Afrique. Païs des Caffres.' Like *Ois.Afr.* pl.5, in reverse, with different background. The bird does not occur in South Africa.

UBL 69 (p.184) Manufactured: 'Le faucon huppé d'Afrique, du Païs des Caffres.' Like *Ois.Afr.* pl.28, in reverse.

UBL 70 (p.184) *Telophorus olivaceus*: 'Piegriesches mâle et femelle du Païs des Caffres.' Male (below) and female. Like *Ois.Afr.* pl.75.

UBL 71 (p.184) *Nilaus afer brubru* (above) and *Dryoscopus cubla*: 'Piegriesches du Païs des Caffres.' Similar to UBL 21.

UBL 72 (p.184) *Lanius collaris*: 'Le Fiscal du païs des Caffres et de Sénégal, mâle.' Like *Ois.Afr.* pl.61.

UBL 73 (p.184) *Lanius collaris*: 'Fiscal jeune âge.' Like *Ois.Afr.* pl.62.

UBL 74 (p.185) 'Differens ustenciles des Caffres et des Gonaquois.' Like KB 33 and CT 64. Nine small figures of various objects.

UBL 75 (p.190) *Terpsiphone viridis* (above) and an unidentified bird: 'Gobemouche à longue queue, et Gobemouche d'Afrique chez les Gonaquois.'

UBL 76 (p.190) *Emberiza flaviventris*: 'Le Bruant varié à ventre jaune du Gamtos Rivière. Païs des Gonaquois.'

UBL 77 (p.193) Unidentified heron: 'Le Heron blafard d'Afrique, du Païs des Gonaquois, près du Groote Visrivier.' The bird is brownish with white spots.

UBL 78 (p.194) *Alcedo semitorquata*: 'Martin Pecheur bleu. Païs des Gonaquois près du Groote Visrivier, et du Païs d'Autheniquoi.' Like KB 34.

Volume II

UBL 79 (p.199) Manufactured: 'Gobbe Mouche blanc à fillet noir d'Afrique.' Like *Ois.Afr.* pl.149 f.1, a bird that was never seen again.

UBL 80 (p.199) *Trochocercus cyanomelas*: 'Gobemouche mantelée Mâle et Femelle du Païs des Gonaquois.' Like *Ois.Afr.* pl.151, in reverse, and the branch shows some leaves.

UBL 81 (p.199) Unidentified bird: 'Le coucal tachirou du Païs des Gonaquois.' Like *Ois.Afr.* pl.216, in reverse, with different branch. The bird is absent from South Africa.

UBL 82 (p.199) *Sigelus silens* (above) and *Pogonocichla stellata*: 'Gobemouche noir et blanc, Gobemouche a tête grise. Païs des Gonaquois.' The same figures are found in *Ois.Afr.* pls. 74 and 157 respectively.

UBL 83 (p.199) *Cuculus clamosus*: 'Le coucou criart mâle. Des environs du Groot Visrivier dans le Païs des Gonaquois.' Like *Ois.Afr.* pl.204, not reversed, with a different branch.

UBL 84 (p.205) 'La Horde de Narina, jeune Gonaquoise où Mons.r Le Vaillant va visiter le Roi Haabas.' Folded. Caption in ink. Like CT 12.

UBL 85 (p.214) 'Hutte des Hottentots.' Like CT 58.

UBL 86 (p.214) 'L'interiéur et dehors d'une Hutte des Houssuanas.' Like CT 61.

UBL 87 (p.214) 'Hutte des Grands Namaquois, ornée en dehors des peaux de différens animaux.' Like CT 56.

UBL 88 (p.215) '1. Tablier des Femmes Hottentottes qu'elles font à leur gout en l'ornant suivant leur coquetterie. 2. *Autre* tablier de pudeur des Gonaquoises, celui ci est celui qui portoit Narina. 3. Tablier du pudeur des femmes Houzouana et des Hottentottes de desert. 4. Tablier d'un chef des Grands Namaquois. (5.) Tablier de pudeur des Gonaquois fait de la peau du Jakal, et termine par des triangles de peau.'



Fig. 106 Bluemantled flycatcher *(Trochocercus cyanomelas)*, drawing UBL 80.

UBL 89 (p.228) '1. Carquois Hottentot garni de ses flèches. 2. Etui en ivoire pour secrer le poisson ou pour les flèches. 3. Flèches empoissonnées à la pointe de fer. 4. Assagaye à pointe de fer dont les Hottentots se défendent. 5. Arc Hottentot: 6. Kiria à dent d'un chef Hottentot.' Like KB 35.

UBL 90 (p.228) '1:2. Lances de parades des chefs Cabobiquois. 3. Assagaye ou de chasse ou de guerre. 4. Carquois fait en cuir et orné avec gout. 5. Epèce de gibiciere dans laquelle ces peuples renferment leurs petits outils et leurs pipes. (Figs. 6-8 No explanation.) 9:10. Paniers faits très artistement. 11. Panier tellement serré qu'il peut contenir le lait et même de l'eau des Caffres et des Gonaquois.' Like CT 70.

UBL 91 (p.248) '1. Rommelpot ou Tomtom. 2. Flute des grands Namaquois. 3. Toumjoum d'ont les femmes jouent en touchant avec un petit baton sur la corde. 4. Le Goura des Hottentots. 5. Flute à cinq trous d'ont jouent les Hottentots en dansant. 6. Espèce de Guitarre Caffre.' 7. Espèce de Guitarre Caffre.' Like KB 36.

UBL 92 (p.248) '1. Tomtom caffre fait d'un morceau de tronc d'arbre creuse, et recourant d'un peau tamée. 2. Le petit taton. 3. Autre tomtom qu'ils battent avec une verge. 7.8.9. Vases de quitte pour conserver le lait, l'eau et cuivre leur

viande. 10. Ustencile de terre dans lequelles Caffres bruyent leur müs. 11. Plat double d'un seul morceau dans lequel ils servent leur Mai. 12. Banc sur lequel les femmes s'asseyer pour manger leur bouillier. 16.17.18.19.20. Différentes haches à plusieurs usages.' Like CT 69. Figures 4-6, 13-15 are without explanations.

UBL 93 (p.310) *Neotis denhami*: 'Grande outarde d'Afrique près du Sondag River.'

UBL 94 (p.311) *Myrmecocichla formicivora*: 'Le Traquet fourmillier près du Païs des Caffres.' Like *Ois.Afr.* pl. 187, in reverse.

UBL 95 (p.311) *Bostrychia hagedash*: 'Le courli hadadas, de la côte natale.' Like KB 38.

UBL 96 (p.313) *Chrysococcyx caprius*: 'Le coucou verd doré du Païs des Caffres.' Like *Ois.Afr.* pl.210. The same species is shown on UBL 62 with another locality.

UBL 97 (p.313) *Chrysococcyx klaas*: 'Le coucou de Claes près du Païs des Caffres.' Like KB 39; and *Ois.Afr.* pl.212, in reverse, with different branch.

UBL 98 (p.313) *Connochaetes gnou*: 'La gazelle gnou.' Like KB 40 and CT 84. The same depiction, with a different background, not reversed, is found in Vosmaer (1784a, pl.18).

UBL 99 (p.318) *Lophaetus occipitalis*: 'Le Huppard du Païs des Caffres.' Like KB 41; and *Ois.Afr.* pl.2 in reverse, with a branch and leaves.

UBL 100 (p.318) *Halcyon albiventris*: 'Le martin chasseur du Païs des Caffres. Mâle.' Like KB 42.

UBL 101 (p.318) *Halcyon albiventris*: 'Martin chasseur femelle.' The colour is lighter than that of the bird on UBL 100.

UBL 102 (p.318) *Leptosomus discolor*: 'Le courol, ou le Vouroug-driou mâle. Païs des Caffres et de Madagascar.' Like *Ois.Afr.* pl.226, in reverse. The species is unknown in South Africa.

UBL 103 (p.318) *Leptosomus discolor*: 'Le Vouroug-driou femelle.' Like *Ois.Afr.* pl.227, in reverse, branch showing leaves. The species is absent from South Africa.

UBL 104 (p.342) (No caption: 3 huts.) Like CT 13.

UBL 105 (p.348) *Dichrostachys cinerea*: 'Le Mimosa avec ses fleurs en panachés, du Païs des Grands Namaquois.' Like CT 146.

UBL 106 (p.349) *Dendropicos fuscescens*: 'Le Pie tacheté à huppe rouge, du Païs des Caffres.'

UBL 107 (p.349) *Mesopicos griseocephalus*: 'Pic olive fem. du Païs des Caffres.' Like *Ois.Afr.* pl.249.

UBL 108 (p.349) *Mesopicos griseocephalus*: 'Pic olive Mâle du Païs des Caffres.' Like *Ois.Afr.* pl.248, in reverse.

UBL 109 (p.349) *Phoeniculus purpureus*: 'Le Promerops mocquer du Païs des Caffres.' Like KB 43.

UBL 110 (p.351) Unidentified hornbill, absent from South Africa. There is no caption.

UBL 111 (p.351) *Rhyticeros undulatus*: 'Le Calao Javan, ou le Jaer Vogel.' Like *Ois.Afr.* pl.239. The bird does not occur in South Africa.

UBL 112 (p.351) *Cossypha dichroa*: 'Le merle à ventre orange du Païs des Caffres, près du Kleyne Visrivier.' Same species as *Ois.Afr.* pl.104.

UBL 113 (p.362) *Taurotragus oryx*: 'Le Kana des Hottentots, ou l'Elan gazelle Près la rivière Kantzi.' Like KB 44 and CT 97. The same depiction is found in Vosmaer (1783b, pl.17), not reverse, with a different background.

UBL 114 (p.366) Two Indian birds: 'Traquet à cul roux, le Traquet à queue striée. Païs des Caffres.' Like *Ois.Afr.* pl.188, not reversed. The locality stated here must be incorrect, as Levaillant said that they came from Bengal.

UBL 115 (p.366) Two unidentified species: 'Le Schet noir et le schet roux du Païs des Caffres.' The same species are shown on *Ois.Afr.* pls.147 and 148.

UBL 116 (p.366) Two unidentified birds: '1. Le Senegali à joues oranges. 2. Le Jacobin à tête noire.'

UBL 117 (p.370) (No caption.) Coloured drawing with imprint 'Lepagelet sculp.' in bottom right corner, showing naked woman. Probably like CT 50 and Yale 22.

UBL 118 (p.374) *Eupodotis caerulescens*: 'Canepetière Mâle près de la Rivière Sondag.'

UBL 119 (p.374) *Sarothrura affinis*: 'Marouette à tête rousse, près du Sondag Rivier.'

UBL 120 (p.374) *Sarothrura affinis*: 'Femelle de la Marouette à tête rousse.'

UBL 121 (p.383) *Pterocles namaqua*: 'La gelinotte à collier à longue queue près la Fontaine du Kriga pas loin de la Rivière Camdebo.'

UBL 122 (p.387) *Phoeniconaias minor*: 'La Flamand près du Buffel Rivier.'

UBL 123 (p.387) *Geronticus calvus*: 'Le Courly chauve près du Buffel Rivier.'

UBL 124 (p.398) *Creatophora cinerea*: 'Espèce de Mainate près du Gamtos Rivier.' Reverse of the engraving in the Desray edition of the first voyage.

Volume III

UBL 125 (p.18) *Monticola rupestris*: 'Merle de Roche, ou le Rocar, M: et F: des environs du Cap sur la Montagne de la Table.' Like *Ois.Afr.* pl.101, in reverse.

UBL 126 (p.18) *Bradypterus baboecala* (above) and *Sphenoeacus afer*: 'Merles du Cap de Bonne Espérance.'

UBL 127 (p.18) *Onychognathus morio*: 'Grives du Cap de Bonne Espérance.'

UBL 128 (p.65) *Merops apiaster*: 'Le Guêpier Mâle d'Afrique des environs du Cap.'

UBL 129 (p.65) *Merops apiaster*: 'Le Guêpier Femelle.'

UBL 130 (p.65) *Macronyx capensis*: 'L'Alouette sentinelle, ou le Kalkoentje du Cap.' Like *Ois.Afr.* pl.195, in reverse.

UBL 131 (p.68) *Hydroprogne caspia*: 'Grande hirondelle de mer près du Cap.'

UBL 132 (p.68) *Morus capensis*: 'Le Fou blanc d'Afrique près du Cap de Bonne Espérance.' The legs are yellow.

UBL 133 (p.68) *Morus capensis*: 'Fou de Basan, tué au Cap.' Although the French names of the birds on UBL 132 and UBL 133 differ, they probably depict the same species.

UBL 134 (p.69) *Pelecanus rufescens*: 'Le Pélican couleur de rose du Cap près du Simons Baye.'

UBL 135 (p.71) *Geocolaptes olivaceus*: 'Le Pic à ventre rouge, ou le Pic laboureur sur les Rochers des environs du Cap.' Like *Ois.Afr.* pl.254.

UBL 136 (p.71) *Geocolaptes olivaceus*: 'Le Pic laboureur femelle.' Like *Ois.Afr.* pl.255. The handwriting here differs from that found on the other watercolours, and the text is written within the yellow border.

UBL 137 (p.92) *Raphicerus campestris*: 'Le Steyn Bok dans le Swartland près du Berg Rivier, dans l'intérieur du Cap.' Like CT 94.

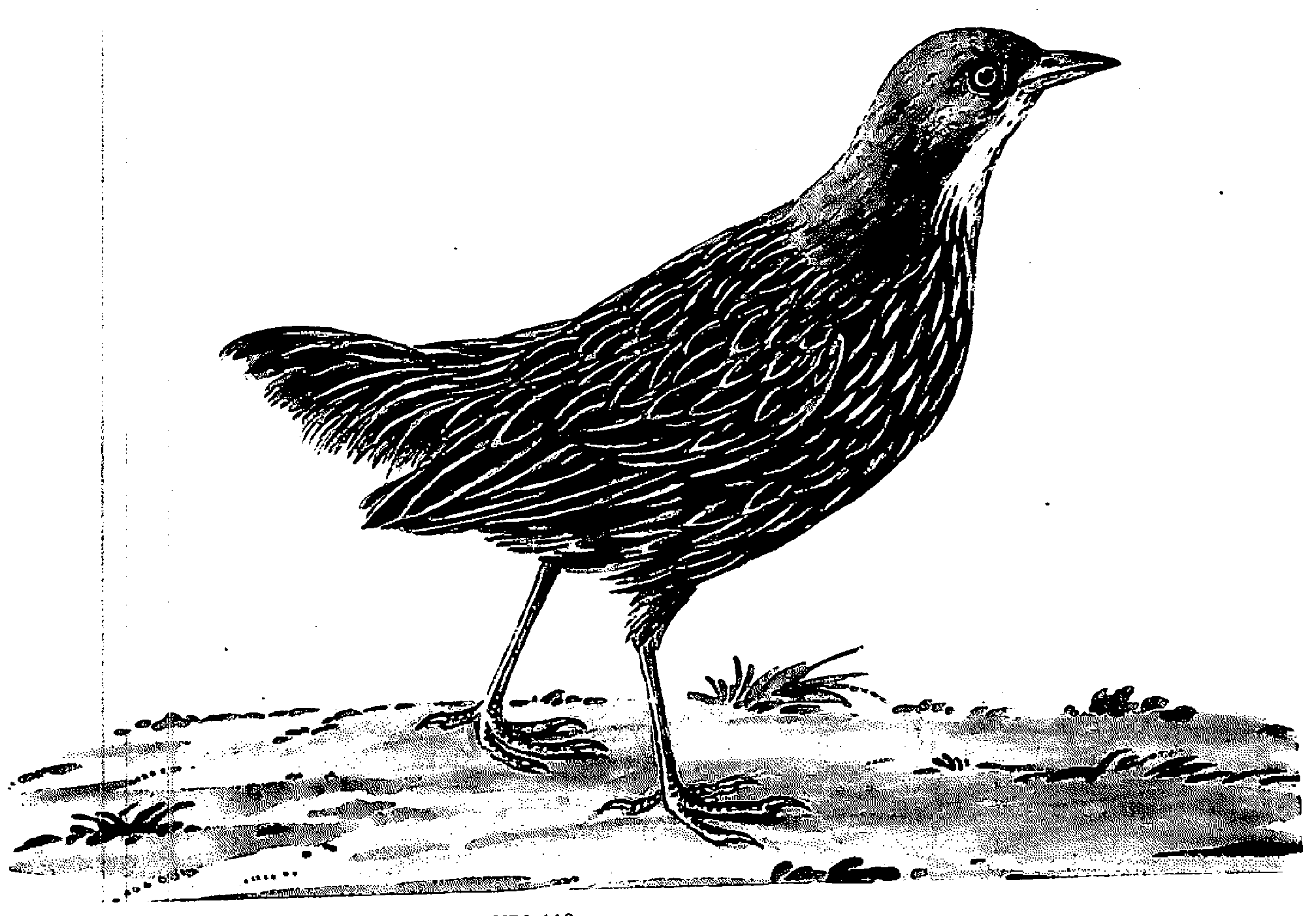


Fig. 107 Striped flufftail *(Sarothrura affinis)*, drawing UBL 119.

UBL 138 (p.92) *Raphicerus melanotis*: 'Le Grijs Bok dans le Swartland, près du Berg Rivier dans l'intérieur du Cap.' Like CT 93.

UBL 139 (p.93) *Sylvicapra grimmia*: 'Le Duyker dans le Swart land près du Berg Rivier.' Like CT 91.

UBL 140 (p.93) *Philantomba monticola*: 'Le Nommetje ou le plus petit des gazelles dans le Swartland près du Berg Rivier au Cap.' Like CT 85.

UBL 141 (p.95) *Anhinga melanogaster*: 'L'Anhinga mâle près des Vingt quatre Rivières.' The attitude of the bird differs from the one on the published engraving in Levaillant (1795, pl.III).

UBL 142 (p.95) *Anhinga melanogaster*: 'L'Anhinga femelle.' Equally unlike the published engraving.

UBL 143 (p.95) *Phalacrocorax carbo*: 'Cormoran à ventre blanc, dans la Baye de Saldanha près du Cap.' The white belly denotes an immature specimen.

UBL 144 (p.95) *Phalacrocorax capensis*: 'Petit cormoran d'Afrique dans la Baye de Saldanha près du Cap.'

UBL 145 (p.106) *Turtur chalcospilos*: 'Tourterelle à taches d'or, ou colombe emeraudine près du Piquetberg.' Like *Ois.Afr.* pl.271, in reverse.

UBL 146 (p.121) *Platalea alba*: 'La Spatule huppé d'Afrique près la Rivière des Eléphans.' The identity of the bird is uncertain, because the legs are grey (not red), and there is no red colour on the head.

UBL 147 (p.121) *Cursorius* sp.: 'Pluvier à ceinture noire d'Afrique près la Rivière des Eléphans.'

UBL 148 (p.121) *Mycteria ibis*: 'L'Ibis à ailes frangés couleur de rose près la Rivière des Eléphans.'

UBL 149 (p.122) *Falco tinnunculus rupicolus*: 'Le Rochier Epervier d'Afrique, au près la Rivière des Eléphans.' Like *Ois.Afr.* pl.35, in reverse.

UBL 150 (p.122) *Micronisus gabar*: 'Le Gabard Mâle Epervier d'Afrique, près la Rivière des Eléphans.' Like *Ois.Afr.* pl.33, in reverse.

UBL 151 (p.166) *Neophron percnopterus*: 'Vautour Hourigourap couleur d'Isabelle du Païs des Namaquois.' Like *Ois.Afr.* pl.14 in reverse. Compare UBL 165 with a different caption, and the flower in the background has another colour.

UBL 152 (p.166) *Corvus albicollis*: 'Le Corbivan Vautour corbeau noir à cravatte blanche du Païs des Namaquois.' Like *Ois.Afr.* pl.50, not reversed, with different background.

UBL 153 (p.168) *Elephas maximus*: L'Elephant Poeskop sans défenses du Païs des Namaquois. Très rare.' Like CT 96. The drawing shows the Indian elephant. 'Très rare' is written in different ink.

UBL 154 (p.185) *Tockus alboterminatus*: 'Calao à bec rouge du Païs des Caffres près du Kleyne Vis Rivier.' Like *Ois.Afr.* pl.234, in reverse, and the branch shows some leaves.



Fig. 108 Crowned hornbill *(Tockus alboterminatus)*, drawing UBL 155.

UBL 155 (p.185) *Tockus alboterminatus*: 'Le Calao couronné Femelle.' Like *OisAfr.* pl.235, in reverse.

UBL 156 (p.205) *Equus zebra*: 'Le Zèbre, dans la vallée de la Riviere Verte, près des hautes montagnes du Camis.'

UBL 157 (p.205) *Equus zebra*: 'Le Zèbre par devant.'

UBL 158 (p.217) *Pterocles namaqua*: 'Gélinotte Mâle d'Afrique près de l'Habitation d'Engelbracht.'

UBL 159 (p.217) *Pterocles namaqua*: 'Gélinotte Femelle.'

UBL 160 (p.220) *Gethylis* sp.: 'Lixia blanc, d'ont les sauvages empoissonnent avec la Racine les pointes de leurs fleches qui est un poison violent.' Like CT 161.

UBL 161 (p.224) *Antholyza ringens*: 'Une belle plante inconnue près de la Rivière Verte, dans le Païs des Petits Namaquois.' Like CT 132.

UBL 162 (p.224) *Ornithogalum* sp.: '1. L'Emanthus à bouquets près la Rivière Verte, chez les Petits Namaquois. 2. La fleur dans sa Gr.Nat.' Like CT 134.

UBL 163 (p.224) *Boophane disticha*: '1. Un superbe Amaryllis avec son oignon, la plus belle Fleur de l'Afrique près la Rivière Verte chez les Petits Namaquois. 2. La Fleur de gran-



Fig. 109 Burchell's courser ***(Cursorius rufus)*****, drawing UBL 147.**



Fig. 110 Mountain zebra *(Equus zebra)*, drawing UBL 156.

deur naturelle.' Like CT 135.

UBL 164 (p.224) *Ferraria undulata*: 'Belle Fleur d'une Plante bulbeuse du genre de Ferrarias du Païs des Grands Namaquois.' Like CT 130.

Volume IV

UBL 165 (p.2) *Neophron percnopterus*: 'Vautour Hourigourap couleur d'isabelle du Païs des Namaquois Grands et Petits.' Like *Ois.Afr.* pl.14, in reverse; and compare UBL 151.

UBL 166 (p.10) *Aloe dichitoma*: 'L'Aloës dichitome ou le Karap près les Kooper Bergen dans le Païs des Petits Namaquois, d'ont ils se servent du tronc pour faire leurs carquois 2. Les fleurs et coroiles de grand: naturelle.' Like CT 145.

UBL 167 (p.10) *Papio ursinus*: 'Le Singe Kees.' Like CT 78. UBL 15 and UBL 202 show the same specimen.

UBL 168 (p.13) *Calodendrum capense*: 'Une branche avec ses feuilles, et une fleur du maronier dans le Païs des Namaquois.' This drawing is not among the plants in the Cape Town collection but it depicts the same species as UBL 169.

UBL 169 (p.13) *Calodendrum capense*: '1. La fleur du Maronier lorsqu'elle commence à pousser, avec le petit bouton du fruit. 2. La fleur dans sa grandeur naturelle. 3. Le fruit dans son ecorce Gr.nat: 4. Le joli Noyau comme il se fait voir quant l'ecorce se crève. 5. Un morceau du Noyau coupé.' Like CT 133.

UBL 170 (p.18) *Albizia adianthifolia*: 'Le Mimosa à fleur en parasol, du Païs des Kobobiquois.' Like CT 157.

UBL 171 (p.19) *Lagonosticta rubricata* (above) and *Estrilda astrild*: 'Le Capi Pieter, et le Capi rayé.'

UBL 172 (p.19) *Prinia flavicans* (above) and *Apalis thoracica*: 'Le Pipit citrun, Païs des Namaquois et des Caffres. Le Figuier à plastron noir.' The upper figure (the Pipit) is like *Ois.Afr.* pl.127 f.1, in reverse. The Figuier is like *Ois.Afr.* pl.123.

UBL 173 (p.19) Unidentified bird: 'Le Figuier acutipennes M: et F: des bords de la Grande Rivière.' Like *Ois.Afr.* pl.133,

not reversed. The bird is unknown in South Africa.

UBL 174 (p.20) *Oreotragus oreotragus*: 'Le Klipspringer ou le Kantzi près la Rivière Orange.' Like CT 95.

UBL 175 (p.20) *Hippopotamus amphibius* : (No caption.) Only the head is shown. Like CT 100, and like the hippopotamus head on the engraving in Levaillant (1795,II:20, upper figure).

UBL 176 (p.21) 'Pierre ou Caillou chatoyant comme l'Opale, ou l'ocuil de chat, d'une couleur rembrunie, avec une zone couleur d'or, trouvé sur les bords de la Grande Rivière ou l'Orange dans le Païs des Grands Namaquois à 28 degrés sud, dans l'intérieur de l'Afrique.' A stone.

UBL 177 (p.23) *Agapornis roseicollis*: 'Petit perroquet à poitrine couleur de rose. Mâle. Païs des Namaquois près la Rivière Orange.'

UBL 178 (p.23) *Agapornis roseicollis*: 'Petit perroquet à poitrine couleur de rose. Fem.' This drawing is very similar to UBL 177, but there are small differences in the colour of the bird's bodies.

UBL 179 (p.23) *Ziziphus mucronota*: 'L'Epine traitresse ou le Caroop des Namaquois sur les bords de la Rivière Orange.' Like CT 137.

UBL 180 (p.30) 'Vue de l'Isle des Hippopotames of Zeekoegat dans les environs de la Rivière d'Orange.' Like CT 30.

UBL 181 (p.30) *Onychognathus nabouroup*: 'Le Nabouroup de Païs des Namaquois à ailes étendues.' The attitude of the bird differs from the illustration in *Ois.Afr.* pl.91.

UBL 182 (p.30) *Laniarius bicolor*: 'Piegriesche Bleu mâle et femelle de l'Afrique du Païs des Grands Namaquois.' Like *Ois.Afr.* pl.73 without the young. It is not known in South Africa.

UBL 183 (p.31) *Acacia giraffae*: 'Une branche de Mimosa d'ont se nourrissent les Giraffes portant ses fleurs et sa semence près du Pays des Caffres.' Folded. Like CT 123 and KB 37.

UBL 184 (p.40) *Sagittarius serpentarius*: 'Le Sagittaire ou Mangeur des serpens des environs de la Grande Rivière dans le Pays des Namaquois.' Similar to *Ois.Afr.* pl.25, in reverse, but there are differences in the tuft and the tail.

UBL 185 (p.47) *Spilornis cheela*: 'Le Pacha du Païs des Caffres et des Grands Namaquois.' Like *Ois.Afr.* pl.15, in reverse. The species does not occur in South Africa.

UBL 186 (p.47) *Milvus migrans parasitus*: 'Le Milan Parasite du Païs des Caffres et Gr. Namaquois.' Like *Ois.Afr.* pl.22, in reverse.

UBL 187 (p.47) ? *Bubo africanus*: 'Le Choucouhou, hulotte d'Afrique près de la Grande Rivière.' Like *Ois.Afr.* pl.39, in reverse.

UBL 188 (p.50) *Poicephalus* sp.: 'Le Perro-bar d'Afrique près du Gamma Rivier dans le Païs des Namaquois.' The bird cannot be identified with certainty.

UBL 189 (p.54) *Giraffa camelopardalis*: 'La Giraffe mâle et femelle du Païs des Namaquois près la Rivière d'Orange.' Compare CT 86, 87, and the two giraffe engravings in Levaillant (1790).

UBL 190 (p.63) *Merops hirundineus*: 'Le petit Guêpier à queue fourchue de l'intérieur des terres du Cap, chez les Namaquois, qui le nomment Tawa.' Like Levaillant's *Promerops* (part: Guêpiers), pl.8.

UBL 191 (p.82) *Phoeniculus cyanomelas*: (No caption.) Like *Promerops*, pl.5 of the same species.

UBL 192 (p.82) *Phoeniculus cyanomelas*: 'Le Promerops Namaquois près la Rivière des Lions. Femelle.' Compare UBL 191 and the *Promerops*, pl.6.

UBL 193 (p.83) Two unidentified birds: '1. Le Republicain Jeannoir. 2. Le Manaquin à front blanc.'

UBL 194 (p.84) *Proteles cristatus*: 'Le Hyenne dans le Païs des Caffres.' Like KB 30.

UBL 195 (p.84) *Felis caracal*: 'Le Jackal de l'intérieur des terres du Cap de Bonne-Espérance.' Like CT 106 and KB 31, where the same transposition of captions occurred, here with UBL 196.

UBL 196 (p.84) *Canis mesomelas*: 'Le lynx roux des terres d'Auteniquoi.' Like CT 104 and KB 32. Caption transposed from UBL 195.

UBL 197 (p.89) *Numida meleagris*: 'La Poule pintade brune de l'Afrique près la Rivière Kouga.' Like KB 23.

UBL 198 (p.89) *Guttera pucherani*: 'La pintade huppé d'Afrique du Païs des Namaquois.'

UBL 199 (p.90) *Uraeginthus granatinus*: 'Le grenadin mâle et femelle.'

UBL 200 (p.90) *Pedetes capensis*: 'La gerboise nommée au Cap de Bonne Espérance De Springhaas.' Like CT 107.

UBL 201 (p.91) *Polemaetus bellicosus*: 'Le Grifard Aigle d'Afrique Païs des Caffres.' Like *Ois.Afr.* pl.1, in reverse, with a different branch.

UBL 202 (p.117) *Papio ursinus*: 'Le Singe Kees.' Like UBL 15, 167, and compare CT 78.

UBL 203 (p.136) *Equus quagga*: 'Le Kwagga Mâle.' Like CT 108.

UBL 204 (p.137) *Vidua macroura*: 'La veuve dominiquaine Mâle et Femelle.'

UBL 205 (p.137) Unidentified birds: '1. Guiguit bleu Mâle. 2. la femelle. 3. le jeune.'

UBL 206 (p.137) Manufactured: 'Le cordon noir M: et F: du Païs de Cabobiquois.' Like *Ois.Afr.* pl.150, not reversed, with different background. The bird is not known in South Africa.

UBL 207 (p.137) *Nectarinia afra*: (No caption.) Like *Ois.Afr.* pl.300.

UBL 208 (p.137) *Streptopelia capicola*: 'La Tourterelle blonde Païs des Cabobiquois.' Like *Ois.Afr.* pl.268, in reverse, with a different branch.

UBL 209 (p.137) *Lybius torquatus*: 'Le Barbican.' Like *Ois.Paradis*, pl.19.

UBL 210 (p.144) *Diceros bicornis*: 'Rhinocéros bicorne, près la Rivière des Poissons dans l'Afrique méridionale.' Like CT 101.

UBL 211 (p.146) Unidentified bird: 'Le Tracal mâle du Païs des Gr. Namaquois.' Like *Ois.Afr.* pl.191, not reversed, with different background. The bird is unknown in South Africa.

UBL 212 (p.146) *Corvus albus*: 'La Corneille à scapulaire blanc. Païs des Namaquois et des Caffres.' Like *Ois.Afr.* pl.53, in reverse, with a different branch.

UBL 213 (p.146) Unidentified bird: 'Le Hausse col noir des Grands Namaquois.' Like *Ois.Afr.* pl.110, a bird not known in South Africa.

UBL 214 (p.147) *Crinum macowanii*: 'Le beau Lis près des Bords de la Rivière des Poissons.' Like CT 154.

UBL 215 (p.147) *Cyrtanthus sanguineus*: 'Un beau Lis rouge cramoisi à pointe jeaune citron avec son oignon.' Like CT 136.

UBL 216 (p.147) *Eulophia ovalis*: 'Jolie fleur lilas avec sa tige et ses oignons du Païs des Kabobiquois.' Like CT 156.



Fig. 111 Yellowbilled kite *(Milvus migrans)*, drawing UBL 186.

UBL 217 (p.147) *Pachypodium namaquanum*: 'Une très belle plante, un genre nouveau, ayant sur le haut de son tronc hérissé de pointe des feuilles dechiquettées, et un paquet de fleurs d'un rouge carmin.' Like CT 164.

UBL 218 (p.147) Two unidentified birds: 'Le Grosbec gris – le Grosbec verd d'Afrique près la Rivière des Poissons.'

UBL 219 (p.155) Domestic cow: 'Le Boeuf de guerre ou le Bakeley os chez les petits Namaquois.' Like CT 98.

UBL 220 (p.159) 'Un chef de Cabobiquois, armé avec son bouclier et la lance nommé Jugurtha par Monsr. Le Vaillant.' Like CT 57.

UBL 221 (p.160) 'Homme Caminouquois fumant sa pipe.' Like CT 52 and Yale 28.

UBL 222 (p.160) 'Femme Caminouquois avec son enfant.' Like CT 53 and Yale 29.

UBL 223 (p.171) *Laniarius barbarus*: 'Piegriesche rouge. Le Gonoleg du Païs des Kabobiquois.' Like *Ois.Afr.* pl.69. The bird is not known in South Africa.

UBL 224 (p.171) *Treron abyssinica*: 'Columbar à ventre jaune Mâle Païs des Kabobiquois vers la Rivière des Poissons.' Like *Ois.Afr.* pl.276. The bird is unknown in South Africa.

UBL 225 (p.171) *Treron abyssinica*: 'Femelle du Columbar à ventre jaune.' Like *Ois.Afr.* pl.277. Cf. Remark at UBL 224.

UBL 226 (p.174) *Coracias caudata*: 'Rollier d'Afrique du Païs des Cabobiquois et du Sénégal à longue queue.' Like *Ois.Paradis*, | vol. I pl.25.

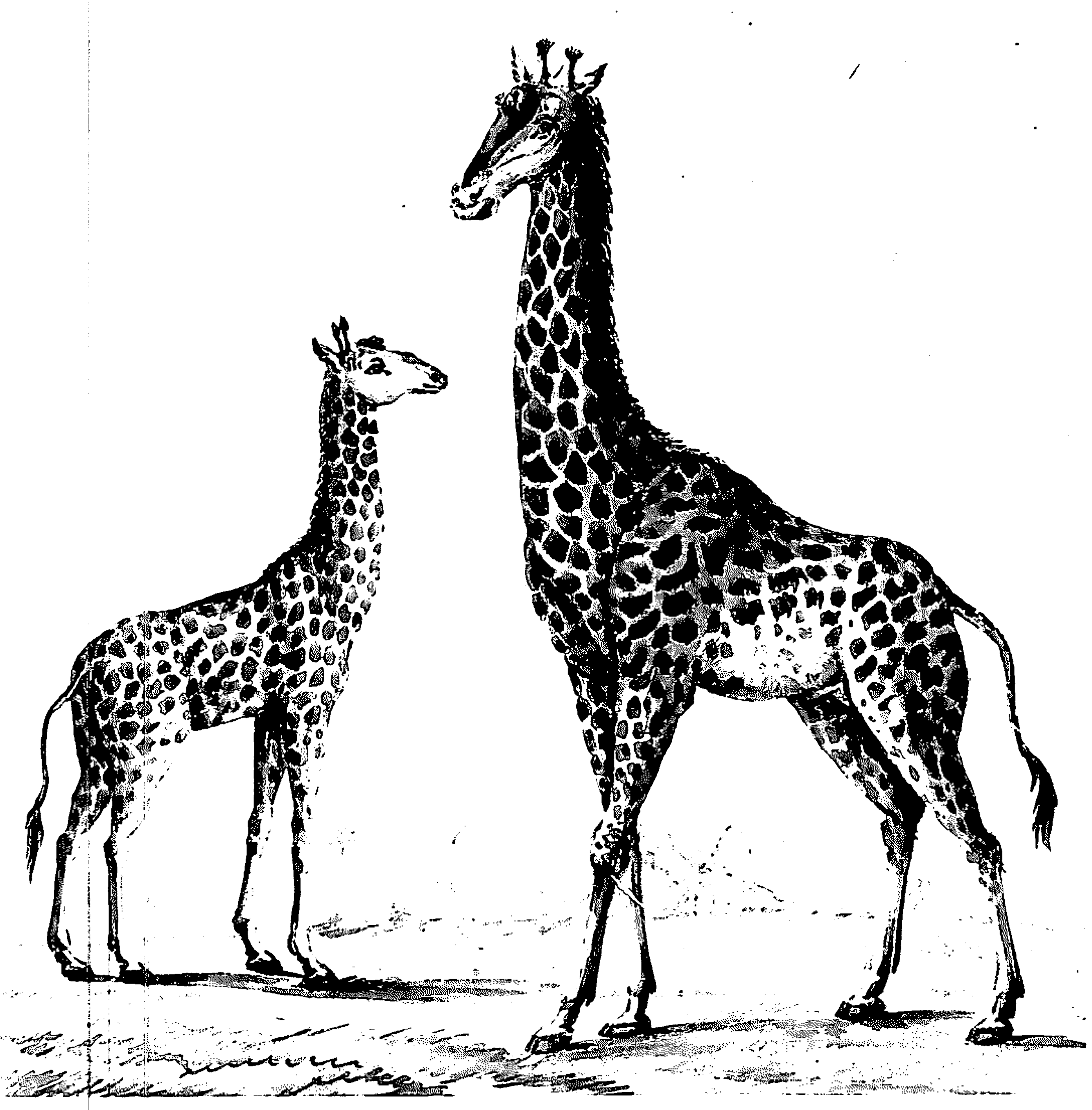


Fig. 112 Giraffe *(Giraffa camelopardalis)*, drawing UBL 189.

UBL 227 (p.174) *Merops superciliosus*: 'Le Guêpier couleur de rose à tête verte, du Païs des Cabobiquois près de la Rivière des Poissons.' Like *Promerops* (part: Guêpiers), pl.19.

UBL 228 (p.239) *Tauraco corythaix*: 'Tauraco var: vers la Rivière Orange.' Like UBL 23, and *Promerops* (part: Couroucous), pl.16.

UBL 229 (p.239) *Phacochoerus aethiopicus*: 'Le sanglier à large groin Des environs de la Rivière des Poissons.' Like CT 109, and the engraving published in Levailant (1795), not reversed.

UBL 230 (p.258) *Xerus inauris*: 'L'Ecureuil d'Afrique. L'Aguimp des Grands Namaquois.'

UBL 231 (p.259) Unidentified bat: 'Le chauve souris à quatre oreilles ou l'oreillarde du Païs des Grands Namaquois.' Like CT 110.

UBL 232 (p.304) *Euplectes progne*: 'Veuve à longue queue et épaulettes rouges, Mâle, dans le voisinage des Sneuwberg.'

UBL 233 (p.304) *Euplectes progne*: 'Veuve à longue queue d'épaulettes rouges. M: et Femelle.' The male in this picture is similar to the bird on UBL 232, the female is added, and the

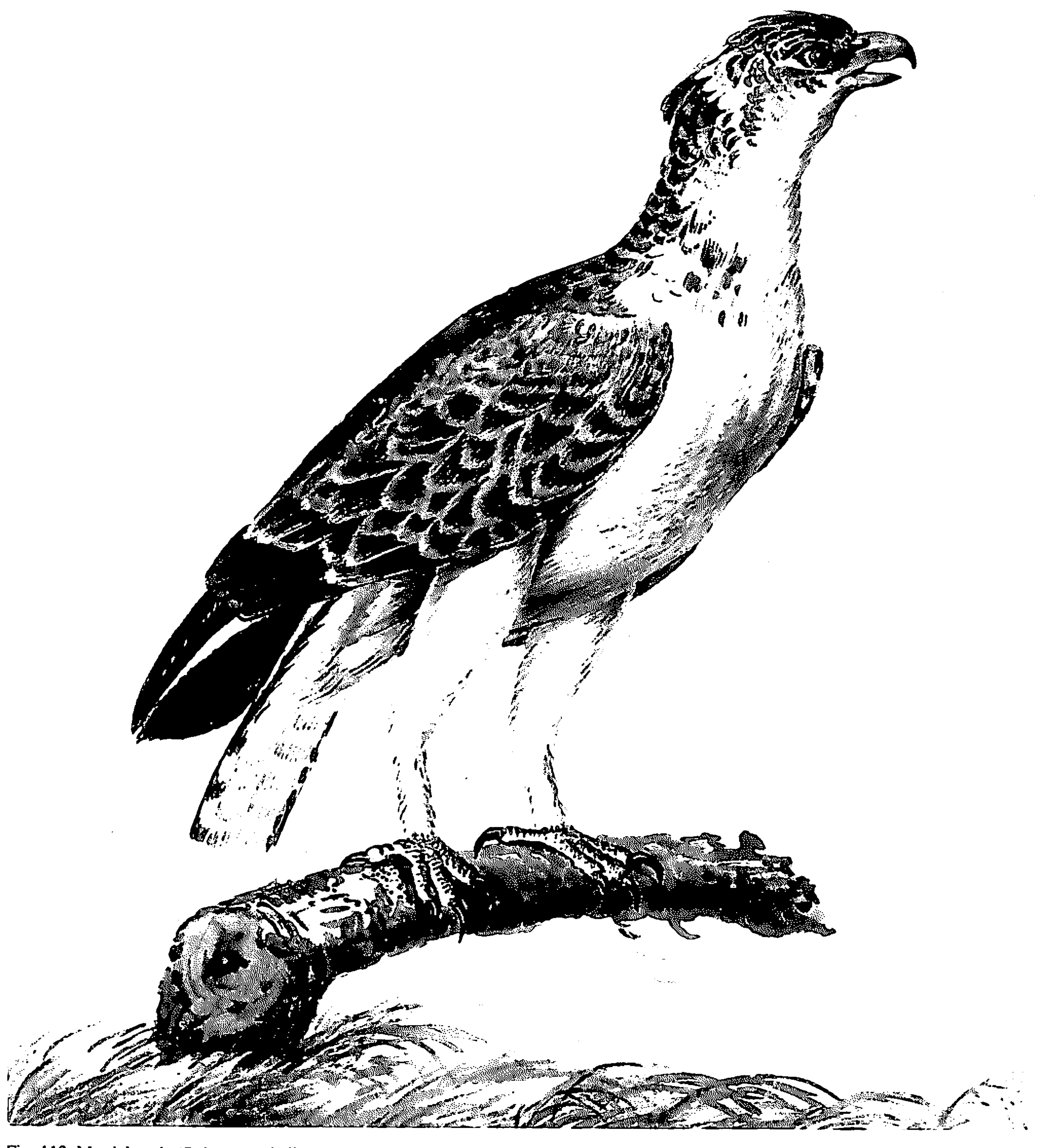


Fig. 113 Martial eagle *(Polemaetus bellicosus)*, drawing UBL 201.

background is painted in a slightly different way.

UBL 234 (p.315) *Torgos tracheliotos*: 'L'Oricou Païs des Grands Namaquois nommé par les sauvages Ghaïp.' Like *Ois.Afr.* pl.9, in reverse.

UBL 235 (p.322) Nest of *Philetairus socius*: 'Le nid des oiseaux républicains construit contre un grande arbre, dans le Païs des Kabobiquois.' Like CT 152.

UBL 236 (p.324) *Philetairus socius*: 'Le Republicain dans le Païs des Petits Namaquois, à l'hermitage de Schoenmaker.'

UBL 237 (p.324) *Philetairus socius*: 'Le Republicain mâle et variété.'

UBL 238 (p.327) *Antidorcas marsupialis*: 'Le Spring ou



Fig. 114 Ground squirrel *(Xerus inauris)*, drawing UBL 230.

Parade Bok près du Sondag rivier du Païs des Coraquois.' Like CT 102. The same depiction is found, not reversed, with a different background, in Vosmaer (1784b, pl.19).

UBL 239 (p.327) *Antidorcas marsupialis*: 'Le Spring ou Parade Bok ayant la croupe blanchée.' Like CT 103.

UBL 240 (p.357) *Eudyptes chrysocome*: 'Le Pingouin ou le Manchot Aigrette, dans l'intérieur du Cap, dans le Verloore Valley'. Similar to the engraving in Levaillant (1797-98).

UBL 241 (p.358) *Gallinula chloropus*: 'La Poule d'eau à placque rouge: dans le Verloore Valley.'

UBL 242 (p.358) *Amaurornis flavirostris*: 'Poule d'eau de l'intérieur de l'Afrique dans le Verloore Valley.'

12.10 RAYE'S COPY OF THE OISEAUX D'AFRIQUE (RMNH)

The sales catalogue of Raye's library listed one copy of this work (Raye 1825):

> Folio 36: 'Histoire Naturelle des Oiseaux d'Afrique, par le Vaillant. Paris 1799-1808. 6 vols. pap.vélin.'

The annotation stated: 'Plus il a été ajouté un frontispiece et un nombre considérable de dessins originaux des têtes et pieds de grandeur naturelle des oiseaux de proye, supérieurement dessinés en couleurs.'

The price of the set was Hfl. 499,00. It was probably bought by C.J.Temminck, because the sales catalogue of his library of 27 September 1858 mentioned this title with the addition: 'Ex.soigné à planches doubles en couleur et en noir et orné de dessins en couleur, de Têtes et Becs des Individus les plus rares qui se trouvent dans la collect. de Mr.Temminck et d'un titre dessiné répresentant un Aigle' (Temminck 1858:63). It may be assumed that the reference here to birds in Temminck's cabinet was erroneous. Temminck's copy was sold in 1858 to Brill, the Leiden bookseller, for Hfl. 231,00 (according to an annotated copy of Temminck's catalogue in the Artis Library, Amsterdam). There can be little doubt that Raye's copy and Temminck's copy are the same as that now present in the Rijksmuseum van Natuurlijke Historie (RMNH), Leiden, Holland.

The second page of volume I in this RMNH set has the following printed note:

> A cet exemplaire choisi et retouché au pinceau sur plusieurs oiseaux de mon cabinet ont été ajouté beaucoup de dessins originaux des Têtes et pieds de grandeur naturelle des *Oiseaux* de *Proye*.
>
> Raye de Breukelerwaert.

The six folio volumes contain 53 additional drawings, most of them in volume I. They were stated to be drawn after specimens in the collection of Joan Raye. That statement cannot be quite substantiated, because only 22 species depicted on the drawings can be identified in the sales catalogue of Raye's birds (Raye 1827, see 12.17). Except a few cases, the drawings are in reverse compared with their published counterparts. This shows that possibly they were the originals from which the plates were engraved, or copies from them. In most cases, however, there are at least minor differences between the drawing and the engraving, especially in the background or in the branches on which the birds are perched.

The 53 additional drawings are here listed in the same order in which they are bound. They were given a number according to their position, preceded by RMNH to identify the collection.

RMNH 1 (Frontispiece) *Haliaeetus vocifer*. The plate depicts an eagle carrying a sheet of paper with these words:



Fig. 115 Longtailed widow *(Euplectes progne)*, drawing UBL 233.



Fig. 116 Olive bee-eater *(Merops superciliosus)*, drawing UBL 227.

Le Vocifer, No. 1er, L'un des six exemplaires f.lio, soignés par l'auteur, F.Levaillant.

The words were written by hand, not printed. The signature may not have been put by Levaillant himself, as it differs from those known in the Yale collection and in some letters and documents (cf. Bokhorst 1973c:108). This must be the first of six special signed copies (cf.12.4.3). 'No.1' in the inscription refers to the book number, not to the bird.

RMNH 2 (pl.3) *Stephanoaetus coronatus*: 'La tête et la griffe du Blanchard, du grandeur naturelle. Du Païs d'Auteniquoi.' Like RPK 4.

RMNH 3 (pl.7) *Terathopius ecaudatus*: 'La tête et la griffe du Bateleur, de grandeur naturelle, Du Païs d'Auteniquoi et de la côte de Natal.' Like RPK 3.

RMNH 4 (pl.9) *Torgos tracheliotos*: (No caption.) Similar to the published plate, but in reverse.

RMNH 5 (pl.9) *Torgos tracheliotos*: 'La tête de l'Oricou, nommé par les Grands Namaquois Ghaip de grandeur naturelle.' Like RPK 5.

RMNH 6 (pl.10) *Gyps coprotheres*: 'La tête du Chasse-Fiente, vautour bigarre d'Afrique, de grandeur naturelle, de mon cabinet.'

RMNH 7 (pl.10) *Gyps coprotheres*: 'Le pied et la griffe du vautour bigarre d'Afrique, de grandeur naturelle.'

RMNH 8 (pl.13) *Sarcoramphus papa*: 'La tête et la griffe du Roi des Vautours, de grandeur naturelle. De mon cabinet.'

RMNH 9 (pl.14) *Neophron percnopterus*: 'La tête et la griffe de l'Ourigourap, de grandeur naturelle, des bords de la Rivière d'Orange.'

RMNH 10 (pl.22) *Milvus migrans parasitus*: 'La tête du Milan parasite, du Païs des Caffres et des Grands Namaquois. On le nomme Kuijkendief au Cap.'



Fig. 117 Cape vulture *(Gyps coprotheres)*, drawing RMNH 6, after a specimen in the collection of Joan Raye.

RMNH 11 (pl.23) *Circus ranivorus*: 'La tête du Grenouillard du Pays des Caffres et des marais d'Auteniquoi.'

RMNH 12 (pl.25) *Sagittarius serpentarius*: 'La tête et le pied du Sagittaire ou Mangeur de serpens des plaines arides de l'Afrique et des environs du Cap dans le Swart-Land. De grandeur naturelle. De mon cabinet.'

RMNH 13 (pl.26) *Spizaetus ornatus*: 'La tête et le pied de l'Autour huppé de grandeur naturelle. De mon cabinet.'

RMNH 14 (pl.30) *Falco chicquera*: 'Le Chicquera du Bengale de grandeur naturelle, de mon cabinet.'

RMNH 15 (pl.32) *Circus melanoleucus*: 'La tête et le pied du Tchoug, oiseau de proye du Bengale, de grandeur naturelle. De mon cabinet.'

RMNH 16 (pl.32) *Circus melanoleucus*: 'Le Tchoug de Bengale, de grandeur naturelle. De mon cabinet.' The attitude of the bird differs from the one on the published plate.

RMNH 17 (pl.36) *Elanus caeruleus*: 'La tête et le pied du Blac de l'intérieur des terres de l'Afrique.'

RMNH 18 (pl.39) *Bubo africanus*: 'La tête du chou cou hou, du païs des Grandes Namaquois, de grandeur naturelle.'

RMNH 19 (pl.40) *Tyto* sp.: 'La tête et le pied du Grand Duc de grandeur naturelle Des bords de la Rivière des Elephans en Afrique.' This drawing was illustrated and discussed by Mees (1967), who selected the specimen shown as the lectotype of *Strix bubo capensis* Daudin, 1800.

RMNH 20 (pl.41) *Asio clamator*: 'La tête et le pied du Huhul de Cayenne, de grandeur naturelle. De mon cabinet.'

RMNH 21 (pl.43) *Lophostrix cristata*: 'La tête de la Chouette à aigrette blanche. Mâle. De grandeur naturelle.'

RMNH 22 (pl.43) *Lophostrix cristata*: 'La tête de la Chouette à aigrette blanche. Femelle. De grandeur naturelle.'

RMNH 23 (pl.44) *Pulsatrix perspicillata*: 'La tête de la Chouette à masque noir et plumes soyeuses. De grandeur naturelle. De mon cabinet.'

RMNH 24 (pl.44) *Pulsatrix perspicillata*: 'La Chouette à masque noir de l'Amerique méridionale de grandeur naturelle. De mon cabinet.' The position of the bird differs from that on the published plate.

RMNH 25 (pl.45) *Strix nyctea*: 'La tête et le pied de la Chouette blanche, de grandeur naturelle. De mon cabinet.'

RMNH 26 (pl.49) *Caprimulgus pectoralis*: 'L'engoulevent à collier des bords du Gamtos Rivier dans le Païs d'Auteniquoi en Afrique. De grandeur naturelle. De mon cabinet.'

RMNH 27 (pl.50) *Corvus albicollis*: 'La tête du Corbivau, du Païs des Grands Namaquois.'

RMNH 28 (pl.55) Manufactured: 'La Pie à culotte de peau, de la Mer du Sud, de grandeur naturelle. De mon cabinet.'

RMNH 29 (pl.57) *Cissa flavirostris*: (No caption.) It is in reverse compared with the published plate, with a slightly different branch.

RMNH 30 (pl.65) Manufactured: 'La piegriesche à plastron blanc des îles de la Mer du Sud. De grandeur naturelle. De mon cabinet.'

RMNH 31 (pl.79) Manufactured: 'Le Bec de Fer huppé des isles de la Mer du Sud. De grandeur naturelle. De mon cabinet.' The bird on the watercolour is like that on the plate, not reversed. The branches differ. On the watercolour someone (probably one of the curators of the Leiden museum) wrote 'artefact, zie de artefactencoll. in Mus.Lugd.Bat.'

RMNH 32 (pl.97) *Buphagus africanus*: 'Le Picque Boeuf, du Païs des Grands Namaquois, de grandeur naturelle. De mon cabinet.'

RMNH 33 (pl.117) Manufactured: 'Le merle jaune huppé des isles de la Mer du Sud. De grandeur naturelle. De mon cabinet.'

RMNH 34 (pl.207) *Clamator jacobinus serratus*: 'Le coucou edolio Mâle, des environs du Cap de Bonne Espérance dans la vallée qui sépare la Baye Falso de la Baye de la Table. De grandeur naturelle. De mon cabinet.' The bird on the watercolour is like the one on the published plate, in reverse.

RMNH 35 (pl.208) *Clamator j.jacobinus*: 'Le coucou edolio femelle. De grandeur naturelle. De mon cabinet.'

RMNH 36 (pl.218) *Coua caerulea*: 'Le Coua-Taitzou, mâle, de l'isle de Madagascar et des grands forêts du Païs des Caffres. De grandeur naturelle. De mon cabinet.' The bird on the watercolour differs from the one on the plate.

RMNH 37 (pl.220) *Centropus nigrorufus*: 'La tête et le pied du Coucal-Noirou de l'intérieur de l'Afrique près des environs du Swart Rivier. De grandeur naturelle. De mon cabinet.'

RMNH 38 (pl.224) *Phaenicophaeus pyrrhocephalus*: 'Le Malkoha de l'isle de Ceylan. De grandeur naturelle. De mon cabinet.' The bird on the watercolour differs from the one on the plate.

RMNH 39 (pl.226) *Leptosomus discolor*: 'Le Courol, mâle, de Madagascar, ou le Vouroug-Driou des grandes forêts des Caffres. De grandeur naturelle. De mon cabinet.'

RMNH 40 (pl.227) *Leptosomus discolor*: 'La tête et le pied du Vouroug-Driou fem. De grandeur naturelle. De mon cabinet.'

RMNH 41 (pl.228) *Apaloderma narina*: (No caption.) The watercolour resembles the plate, in reverse, with a different branch.



Fig. 118 Added frontispiece in the copy of Levaillant's *Oiseaux d'Afrique* owned by Joan Raye.

RMNH 42 (pl.229) *Apaloderma narina*: (No caption.) The watercolour resembles the plate, in reverse, with a different branch.

RMNH 43 (pl.231) *Bucorvus abyssinicus*: 'La tête et le bec de l'Abba Gumba ou le Grand Calao noir d'Abyssinie. Mâle. De grandeur naturelle. De mon cabinet.'

RMNH 44 (pl.231) *Bucorvus abyssinicus*: 'La tête et le bec du Grand Calao noir d'Abyssinie. De mon cabinet. Dans son jeune âge.'

RMNH 45 (pl.233) *Tockus fasciatus*: 'Le Calao longibande des côtes d'Angola en Afrique. De grandeur naturelle.'

RMNH 46 (pl.234) *Tockus alboterminatus*: 'Le calao couronné. Mâle. De la côte de Sud Est en Afrique. De grandeur naturelle.'

RMNH 47 (pl.236) *Tockus nasutus*: 'Le Calao nasique mâle. Du Sénégal, adulte. De grandeur naturelle. De mon cabinet.'

RMNH 48 (pl.237) *Tockus nasutus*: 'La tête et le pied du



Fig. 119 Secretary bird *(Sagittarius serpentarius)*, drawing RMNH 12 after a specimen in the collection of Joan Raye.



Fig. 120 African marsh harrier *(Circus ranivorus)*, drawing RMNH 11 after a specimen in the collection of Joan Raye.

Calao nasique jeune âge. Du Sénégal. De grandeur naturelle. De mon cabinet.'

RMNH 49 (pl.238) *Tockus erythrorhynchus*: 'Le Calao Toc, du Sénégal. De grandeur naturelle. De mon cabinet.'

RMNH 50 (pl.239) *Rhytoceros undulatus*: 'La tête et le bec du Calao Javan ou Annuaire des grandes Indes. Mâle adulte. De grandeur naturelle.'

RMNH 51 (pl.265) *Columba guinea*: 'Le Ramier Roussard de l'Afrique nommé Bosch-Duif par les colons. De grandeur naturelle. De mon cabinet.' The handwriting differs from that on other watercolours.

RMNH 52 (pl.280) *Goura cristata*: 'La tête et la huppe de grandeur naturelle du Colombi-Hocco en Hollandois de Kroon-duif van Banda, où il porte le nom Goura. De mon cabinet.'

RMNH 53 (pl.285) *Malaconotus blanchoti*: 'La piegrieche Blanchot. Du Sénégal. De grandeur naturelle. De mon cabinet.' The drawing is like the published plate, in reverse, with a different branch.

12.11 THE WATERCOLOURS IN THE HAGUE (KB)

The Koninklijke Bibliotheek (Royal Library) in The Hague (Holland) preserves a special copy of the first *Voyage* by Levaillant published by Leroy in 1790 (two 4to volumes, as Ogilvie 1962, no.1). These volumes contain all 12 engravings in colour, bound in their correct places, with the exception of 'Le Caffre' and 'Femme Caffre' found at p.337 rather than p.304. Besides these, 44 original watercolours are bound into the volumes. The history of this set is unknown. It is impossible to prove a direct link with the library of Joan Raye as it does not appear in the sales catalogue of 1825. A certain similarity between this set and the UBL volumes cannot be denied. For instance, the manuscript note quoted below in the front of volume I resembles those in the books owned by Raye, although in this case his name is absent. The most striking point is the fact that similar drawings are usually bound in at exactly the same place as in the UBL collection. This cannot be mere coincidence and one must assume that both the KB and UBL collections had a common source, although of course Levaillant might have left instructions where to insert the watercolours.

Here I shall only briefly describe the additional drawings in this KB collection. All are coloured watercolours and the captions are written in ink. Because all are present too in the UBL collection, reference is made only to those for further information. The subject matter on the drawings can be categorised as follows:

Birds	25	Topography	5
Mammals	7	Ethnology	4
Plants	3		

Volume I

Opposite the title-page, there is a manuscript note stating: 'Voyage / Dans l'Intérieur de L'Afrique / par Monsieur Le Vaillant. / Exemplaire Choisi.'

KB 1 (p.24) *Spheniscus demersus*: 'Le Manchot tacheté du Cap M. et F. dans la Baye de Saldanha.' It shows an adult and a young bird. Like UBL 3 (with different title).

KB 2 (p.35) *Gyps coprotheres*: 'Le Vautour Percnoptère, ou la Chasse Fiente De la Montagne de la Table, au Cap.' Like UBL 5.

KB 3 (p.40) *Protea* sp.: 'La Belle Fleur du Protea Argentea qui se trouve sur les montagnes du Lange Kloof, avec l'Etui de la Fleur quand la Fleur est passée.' Like UBL 6.

KB 4 (p.52) 'Le Chariot Maitre en marche attelé de dix Boeufs, en quittand le Cap de Bonne-Espérance.' Like UBL 11.

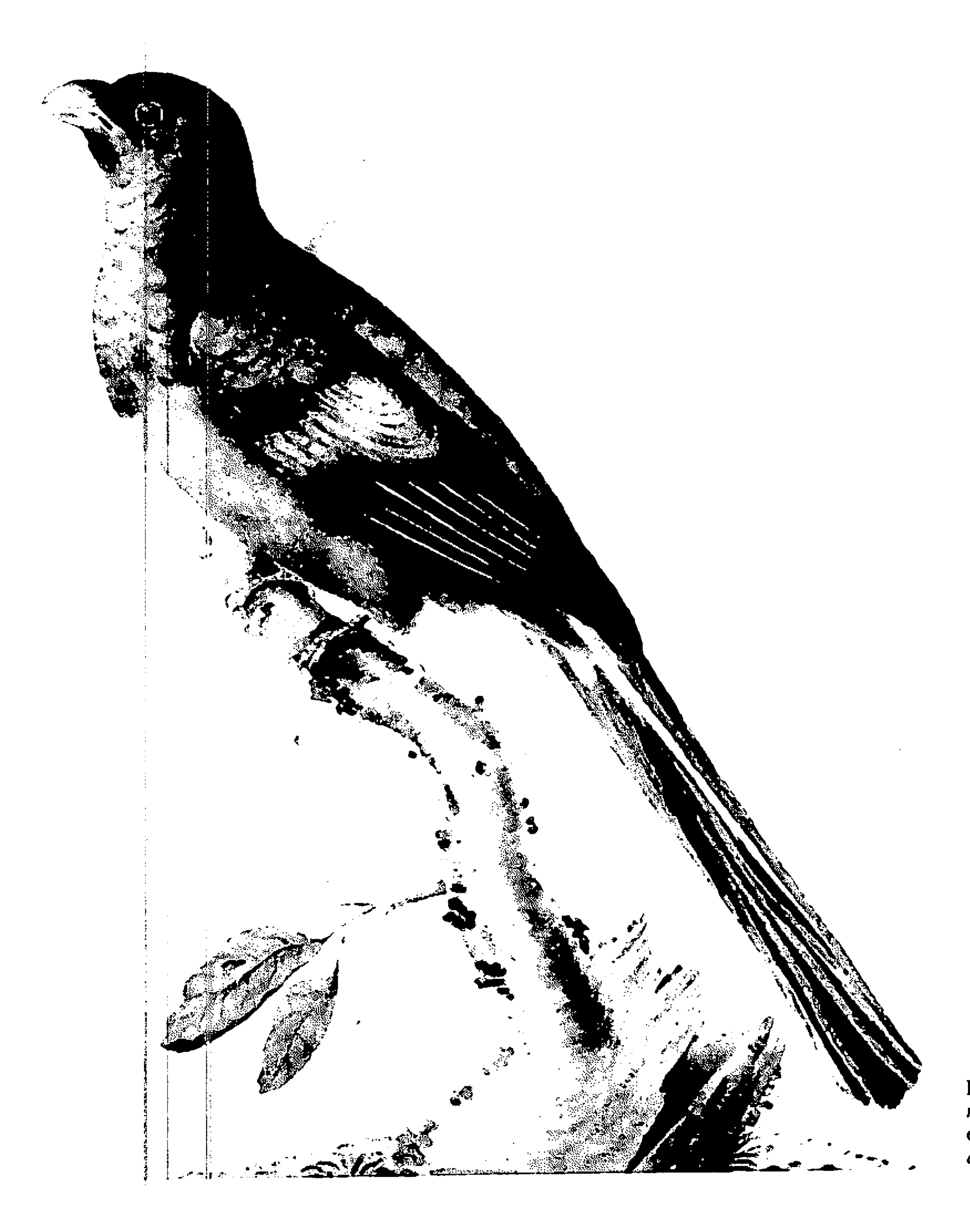


Fig. 121 Narina trogon *(Apaloderma narina)*, drawing RMNH 42, resembling Levaillant, *Oiseaux d'Afrique* pl. 229.

KB 5 (p.75) *Cyrtanthus obliquus*: 'Une belle Fleur, Espèce de Lys, du Païs d'Auteniquoi.' Like UBL 19.

KB 6 (p.80) *Tauraco corythaix*: 'Le Touracou du Païs d'Auteniquoi.' Like UBL 23. Some pencilled sketchlines are just visible along the contours of the tail and the feathers.

KB 7 (p.90) *Terathopius ecaudatus*: 'Le Bateleur, du Païs d'Auteniquoi, et La Côte Natal.' Like UBL 28.

KB 8 (p.90) *Elanus caeruleus*: 'Le Blac, ou le petit milan musqué du Païs d'Auteniquoi.' Like UBL 30.

KB 9 (p.94) *Egretta garzetta*: 'Le petit Heron blanc, près la Rivière Noire.' Like UBL 32.

KB 10 (p.94) *Egretta alba*: 'La grande Aigrette, de l'Afrique, près la Rivière Noire.' Like UBL 33.

KB 11 (p.94) *Caprimulgus pectoralis*: 'L'Engoulevent à collier, du Gamtos Rivier, et du Plettenberg.' Like UBL 34.

KB 12 (p.96) *Syncerus caffer*: 'Le Buffle sauvage, près du Plettenberg Baey, et de la Grande Visch Rivier.' Like UBL 35.

KB 13 (p.101) *Haliaeetus vocifer*: 'Le Vocifer Mâle, Balbusard d'Afrique, dans les environs du Queur Boom.' Like UBL 37 (with longer text).

KB 14 (p.101) *Haliaeetus vocifer*: 'Le Vocifer Femelle.' Like UBL 38.

KB 15 (p.118) 'Le Camp au Poort où se fit la chasse aux Elephants.' Like UBL 39 (bound at p.111).

KB 16 (p.124) *Lamprotornis nitens*: 'Etourneau cuivré d'Afrique, des Bois du Gamtos Rivier.' Like UBL 40.

KB 17 (p.124) *Nectarinia amethystina*: 'Sucrier à gorge amétiste Male et Fem. du Gamtos Rivier, proche le Païs des

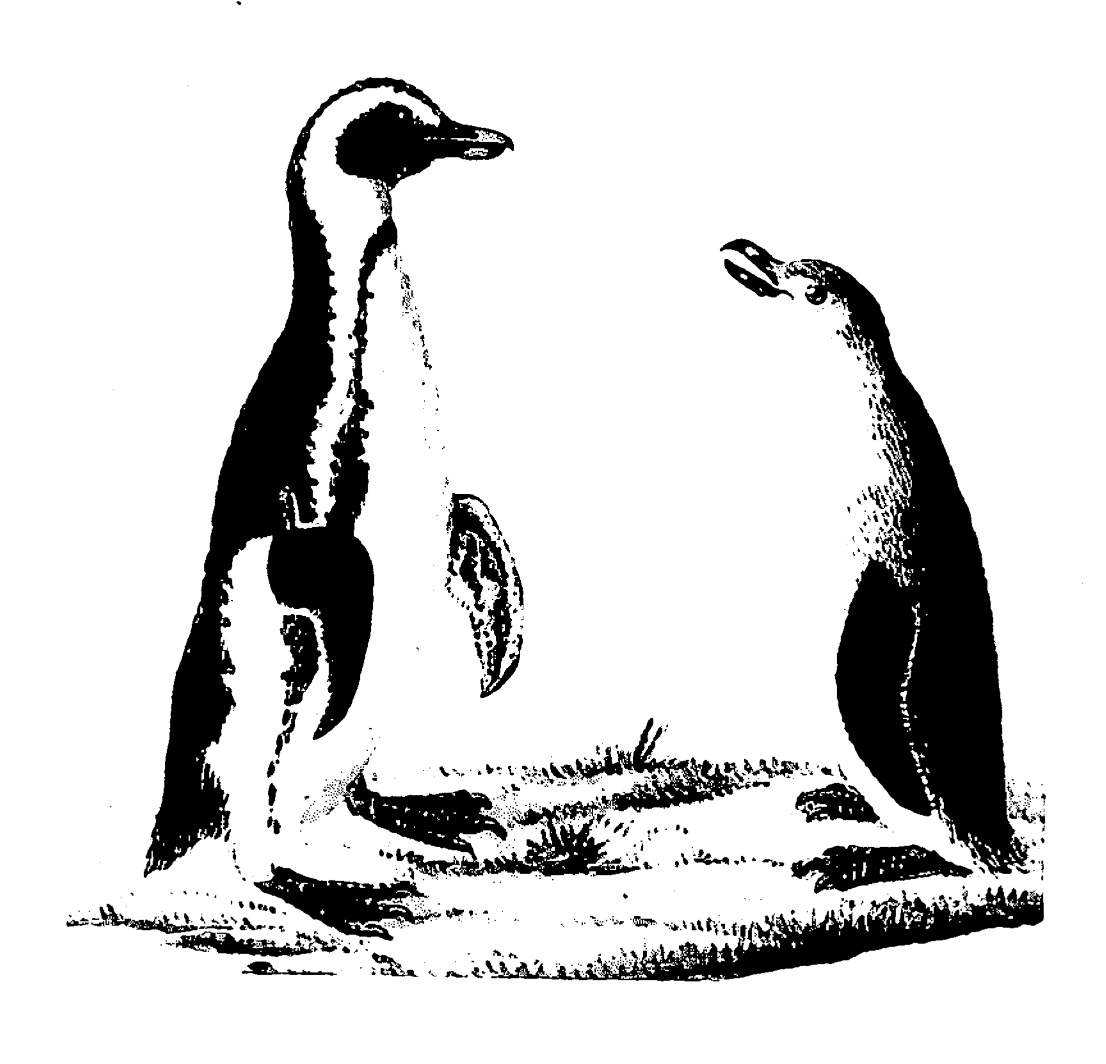


Fig. 122 King penguin *(Spheniscus demersus)*, drawing KB 1.

Caffres.' Male above, female below. Like UBL 41.

KB 18 (p.124) *Apaloderma narina*: 'Le Couroucou à ventre rouge d'Afrique. Mâle, ou le Couroucou Narina des Bois du Gamtos Rivier.' Like UBL 43 (with different text).

KB 19 (p.131) 'Un Capitaine Hottentot avec les Decorations de son grade.' Like UBL 50 (with another text).

KB 20 (p.135) 'Passage du Swart-Kops River.' Folded. Like UBL 51.

KB 21 (p.137) 'La Marche de la Caravane sur les Rochers et les Montagnes près de la Caffrerie.' Folded. Like UBL 52.

KB 22 (p.140) *Pogoniulus pusillus* (fig.2) and *Tricholaema leucomelas* (fig.1, below): '1. Le Grand Barbu. 2. Le Petit Barbu du Païs des Caffres.' Like UBL 53 with figures numbered differently.

KB 23 (p.141) *Numida meleagris*: 'Poule Pintade Brune de l'Afrique, près la Rivière Kouga.' Like UBL 197 (which is bound in IV:89).

KB 24 (p.145) 'Halte à un Crael abandonné.' Like UBL 56.

KB 25 (p.163) *Tragelaphus strepsiceros*: 'Le Coudou de l'Intérieur de l'Afrique près du Sondag rivier.' Like UBL 57.

KB 26 (p.167) *Poicephalus robustus*: 'Le Beau Perroquet à franges soucis, du Païs des Caffres.' Like UBL 58.

KB 27 (p.169) *Caprimulgus europaeus*: 'L'Engoulevent ou Crapand volant à queue fourchue du Païs des Caffres.' Like UBL 59.

KB 28 (p.169) *Cuculus solitarius*: 'Le coucou solitaire Mâle.' Like UBL 60.

KB 29 (p.169) *Chrysococcyx caprius*: 'Le coucou verd doré, ou le Coucou Dideric, à Koks Krael, près du Sondag Rivier.' Like UBL 62.

KB 30 (p.180) *Proteles cristatus*: ''La Hyenne, dans le Païs des Caffres.' Like UBL 194, bound in IV:84.

KB 31 (p.180) *Felis caracal*: 'Le Jackal de l'Intérieur des Terres du Cap de Bonne Espérance.' The caption is erroneous and transposed from KB 32. Like UBL 195, bound in IV:84.

KB 32 (p.180) *Canis mesomelas*: 'Le Lynx roux des Terres d'Auteniquoi.' Erroneous caption, see KB 31. Like UBL 196.

KB 33 (p.185) 'Differens ustenciles des Caffres et des Gonaquois.' Like UBL 74.

KB 34 (p.194) *Alcedo semitorquata*: 'Le Martin Pecheur Bleu, Païs des Gonaquois, près du Groote Visrivier.' Like UBL 78.

Volume II

KB 35 (p.229) (Hottentot weapons.) It has the same long caption as UBL 89.

KB 36 (p.247) 'Differens instrumens de musique des Hottentots'. There are 7 figures described like in UBL 91.

KB 37 (p.310) *Acacia giraffae*: 'Une branche avec les fleurs et la semance d'ont se nourrissent les Giraffes du Mimosa près du Païs des Caffres.' Folded. Like UBL 183.

KB 38 (p.310) *Bostrychia hagedash*: 'Le Courly Hadadas,

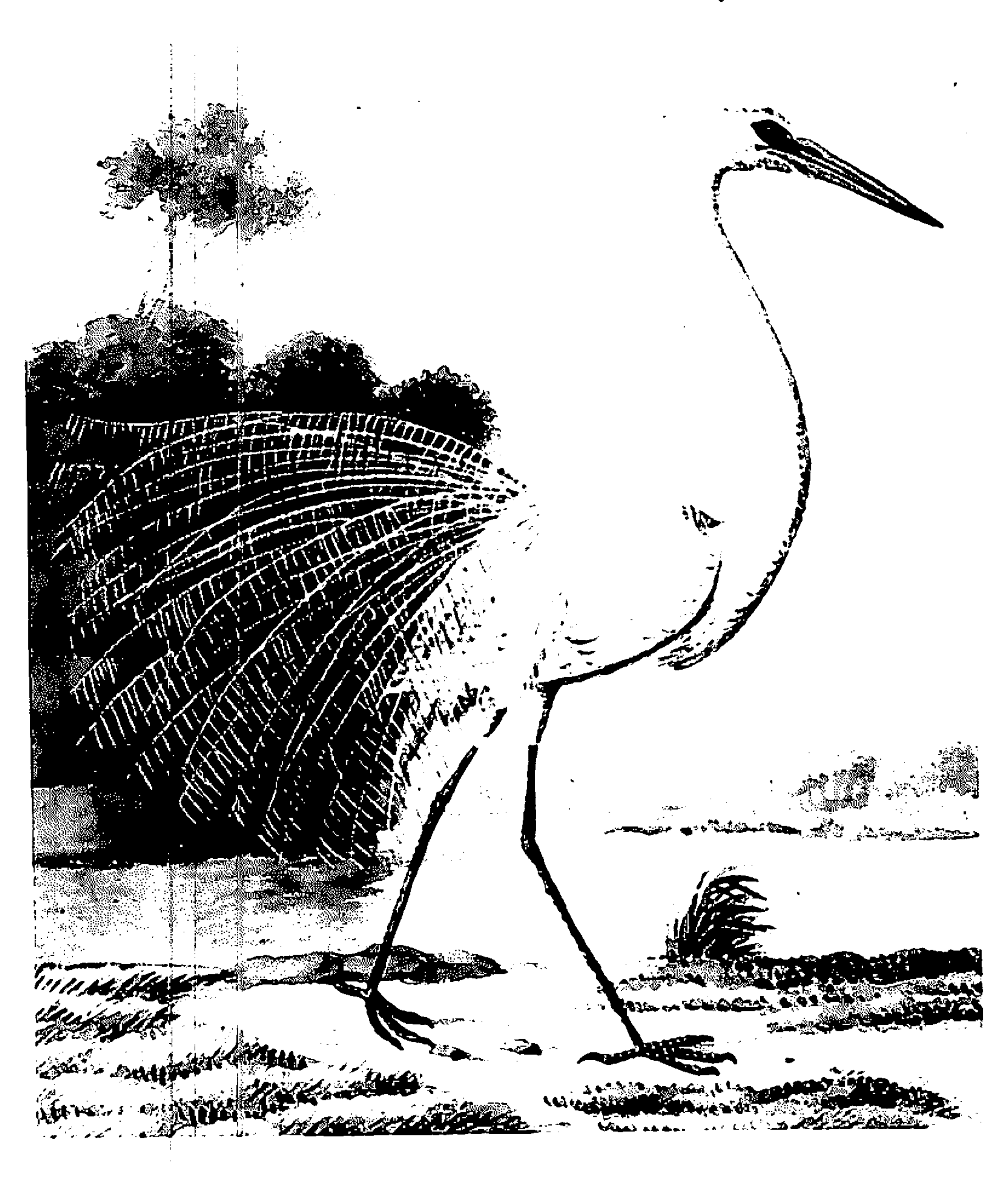


Fig. 123 Great white egret *(Egretta alba)*, drawing KB 10.

de la Côte Natal.' Like UBL 95.

KB 39 (p.313) *Chrysococcyx klaas*: 'Le coucou de Claes Près du Sondag Rivier.' Like UBL 97.

KB 40 (p.313) *Connochaetes gnou*: 'La Gazelle Gnou.' Like UBL 98.

KB 41 (p.318) *Lophaetus occipitalis*: 'Le Huppard du Païs des Caffres.' Like UBL 99.

KB 42 (p.318) *Halcyon albiventris*: 'Le Martin Chasseur Male du Païs des Caffres.' Like UBL 100.

KB 43 (p.349) *Phoeniculus purpureus*: 'Le Promerops Mocqueur à bec rouge du Païs des Caffres.' Like UBL 109.

KB 44 (p.362) *Taurotragus oryx*: 'Le Kana des Hottentots, ou l'Elan Gazelle près la Rivière Kantzi.' Like UBL 113.

12.12 THE WATERCOLOURS IN AMSTERDAM (RPK)

The Rijksprentenkabinet (Rijksmuseum), Amsterdam, preserves a large number of drawings and watercolours attributed to Aert Schouman (1710-1792), either quarto or folio size. Among those of folio size, five watercolours are kept which are unlike the others in style. At the same time, they bear some resemblance to the watercolours in the RMNH collection described in 12.10. The implied attribution to Schouman is interesting, because this gives a name of an artist possibly responsible for the RMNH drawings and others. None of the five watercolours in the RPK is signed. Apart from considerations of style, even the date alone makes the attribution rather unlikely, if not impossible. Schouman died in 1792, while Levaillant's *Oiseaux d'Afrique* started to appear in 1796. I referred the matter to Mr.L.J.Bol who has studied the oeuvre of Schouman with considerable expertise. He kindly informed me that there is no reason to believe that the five watercolours were in fact made by Schouman. The artist therefore remains unknown.

The watercolours may be briefly described. They are denoted by RPK (= Rijksprentenkabinet) followed by a number. I have only referred to similar drawings in the RMNH collection.



Fig. 124 Red fronted tinker barbet *(Pogoniulus pusillus)* and pied barbet *(Tricholaema leucomelas)*, drawing KB 22.

RPK 1 (No caption.) A large folio-sized watercolour showing a vulture perched on a rock. In its beak there is a sheet of paper, with the words:

Histoire Naturelle des Oiseaux D Afrique
par François Le Vaillant
Exempl. soingnées

One is reminded of the added frontispiece in the RMNH set, but it is quite different in composition. Maybe this was a study, maybe it was rejected. The lettering is rather unfortunate. The final 's' in 'des' is nearer to 'Oiseaux' than to 'de...'. There is a spelling error in the last word, which should read 'soignées'.

RPK 2 (No caption.) It shows the head of a vulture.

RPK 3 *Terathopius ecaudatus*: (No caption.) Head of the bateleur, like RMNH 3 without the figure of the leg.

RPK 4 *Stephanoaetus coronatus*: (No caption.) Head only, like RMNH 2, but the head is drawn in reverse, and the figure of the leg is not included here.

RPK 5 *Torgos tracheliotos*: (No caption.) Head only, like RMNH 6.

12.13 THE ATLAS SUPPLEMENTAIRE IN YALE

The Yale University Library has an interesting volume listed in their catalogue by Ripley & Scribner (1961:170): 'Atlas supplementaire des Voyages de F.Le Vaillant. 32 figures ... (n.p., n.d.) 33 col.pl. 30 cm.' This is not a published work, but a compilation made by Levaillant as a special gift.[8] There are 33 plates accompanied (on the facing pages) by 32 handwritten notes. From the writing it appears that these were written by Levaillant himself, whose signature is shown on one of the first pages. The recipient of this particular volume is not known. I have not been able to consult it in person, but have relied on a plain xerox kindly supplied by the Yale University.

The 33 plates (with 32 notes) can be divided into three groups:

1. 18 engravings are again found in the *Oiseaux d'Afrique*.

8. The volume in Yale was earlier described by Rookmaaker (1988a).

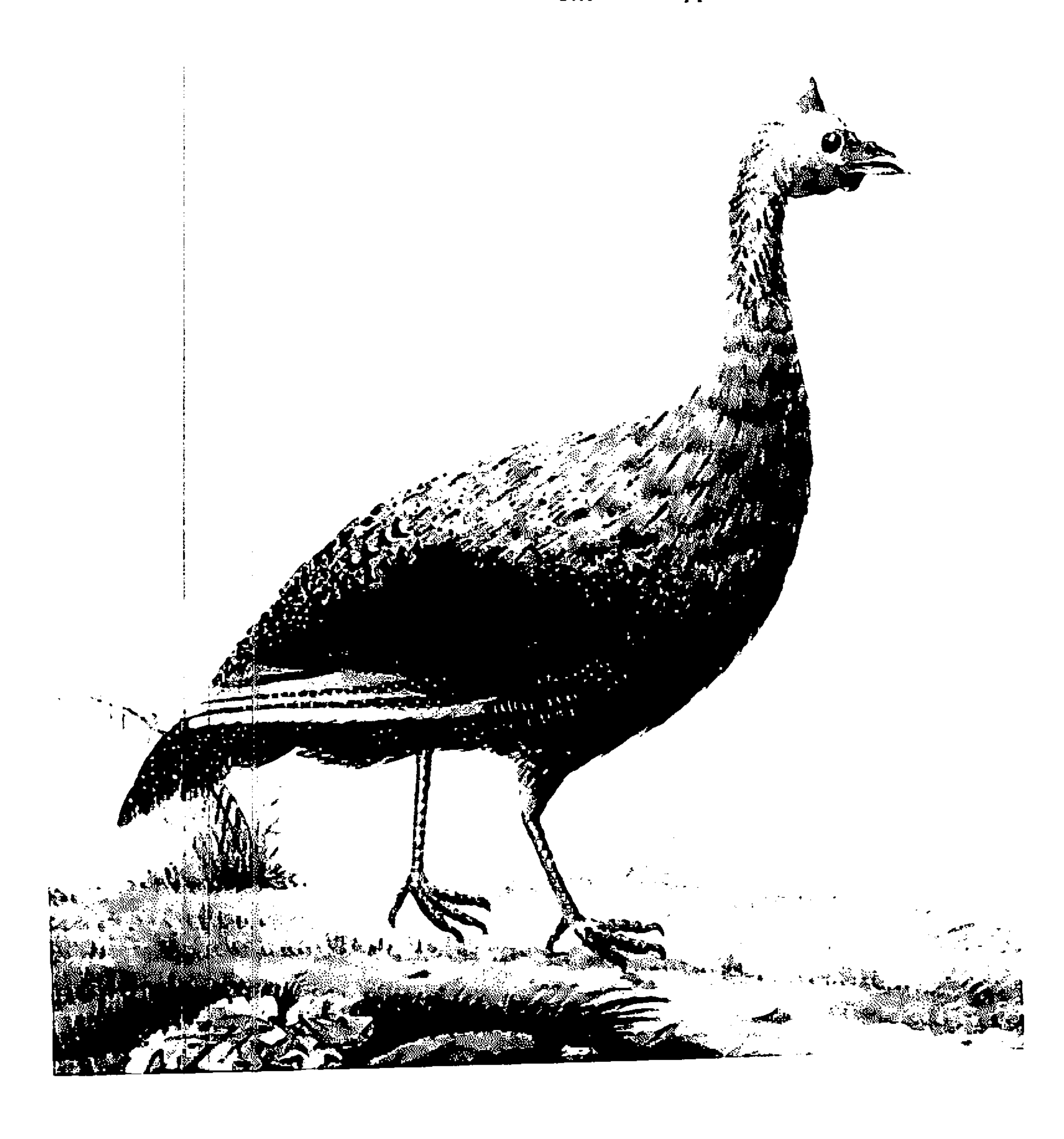


Fig. 125 Helmeted guineafowl *(Numida meleagris)*, drawing KB 23.

Most of these appear among the published plates between nos. 1 and 50. The five plates with higher numbers differ in various ways from the engravings as they are found in the published work, i.e. pl.89 (Yale 14), pl.131 (Yale 33), pl.210 (Yale 17) and pls.228, 229 (Yale 12, 13).

2. 8 engravings are those added to the corrected Desray edition of the first voyage, published in 1797-98.

3. Five plates are not otherwise published by Levaillant. All are coloured engravings. Yale 15 is similar to UBL 50, Yale 22 to UBL 117, Yale 28 to UBL 221, Yale 29 to UBL 222, while Yale 30 is like the frontispiece in Levaillant (1790) with a slightly different composition.

The correspondence with the Desray edition and the peculiarities of the plates similar to the *Oiseaux d'Afrique* mentioned above, give a clue about the date of this volume. Plate 50 of the *Oiseaux d'Afrique* was published in 1800. At the time when this Yale volume was compiled, the plates at least up to no.50 were available in the final version, but not the later ones. One might tentatively suggest a date *ca.*1800.

The volume starts with a title page, a dedication and a list of contents. The title is printed in large letters occupying two full pages:

LEVAILLANT, François
ATLAS SUPPLEMENTAIRE DES
VOYAGES DE F.LEVAILLANT

The next page repeats the title and gives an indication of the contents. This note is handwritten and includes one of the rare examples of Levaillant's signature:

Atlas Supplementaire
des voyages
De F: Levaillant
32 figures
No.3
Exemplaire soigné par l'auteur
[signed] F Levaillant

This interesting statement identifies the volume, certifies that it is supposed to include 32 plates and tells us about Levaillant's personal involvement. It is copy No.3 indicating that two similar volumes would exist, although none of those is now known. We are not given any clue which friend of Levaillant was fortunate enough to receive this copy, nor how it reached its present depository.

There are 33 plates (all engravings), not 32, as one text has two plates. The accompanying text is handwritten on the facing pages. The plates have here been numbered consecutively, but



Fig. 126 Aardwolf *(Proteles cristatus)*, drawing KB 30.

Atlas supplementaire
des Voyages.
De F. Levaillant.
32. figures.
No. 3.....
Exemplaire signe par l'auteur
F. Le Vaillant

Fig. 127 Title-page of the manuscript 'Atlas Supplementaire' assembled by Levaillant, in the Yale University Library (12.13).

these numbers are not included in the volume itself. The order of the illustrations appears haphazard.

Yale 1 *Eudyptes chrysocome*: 'Le manchot aigretté. Cet oiseau se trouve dans la Baye de Saldanha et sur toute la côte est d'Afrique. 1er voyage page (39) 21.' A small engraving, with printed caption: 'Le manchot aigretté. Tom.Ier. pag.41. No.3.' The same engraving was added to the Desray edition of the first Voyage.

Yale 2 *Gyps coprotheres*: 'Vautour du Cap, nommé par les colons Strontjager. On le trouve sur toute la côte est et ouest d'Afrique depuis le Cap jusque vers le 30ième degré de latitude. 1er voyage page 36. Voyez son histoire No. 10 de l'histoire naturelle des oiseaux d'Afrique.' This engraving is the same as the plate in the *Ois.Afr.* pl.10, with the same inscriptions identifying the artists and the name of the bird.

Yale 3 'Camp de Duyven Hock rivier. 1er voyage page 67.' The same engraving is found in the Desray edition of Levaillant's first Voyage, with the same printed caption: 'Camp à Duywen Hock riviere. Tom.Ier. pag.131. No.4.'

Yale 4 *Tauraco corythaix*: 'Le Touraco nommé par les colons du Cap Louri. Il se trouve dans toute les grandes forets du pays d'Auteniquoi et de la Caffrerie. 1er voyage page 80.' The same engraving was added to the Desray edition of Levaillant's first Voyage, with the same printed caption: 'Le Touraco. Tom.Ier. pag.159. No.5.'

Yale 5 *Terathopius ecaudatus*: 'Le Bateleur, Aigle tué dans le pays d'Auteniquoi. Cet oiseau est extraordinaire, par sa queue courte et ses grandes ailes, il a une manière particulière de se jouer dans les airs. Voyez son histoire N.7 de l'histoire naturelle des oiseaux d'Afrique.' *Ois.Afr.* pl.7 is the same plate.

Yale 6 *Terathopius ecaudatus*: 'Cet oiseau est le jeune âge, de l'aigle précédent.' *Ois.Afr.* pl.8 is the same plate.

Yale 7 *Stephanoaetus coronatus*: 'Aigle tué dans le pays d'Auteniquoi, et qui fait la chasse aux pigeons ramier, d'une manière particulière. 1er voyage page 100. Voyez son histoire N.3 de l'histoire nat. des ois.d.que.' *Ois.Afr.* pl.3 is the same plate.

Yale 8 *Haliaeetus vocifer*: 'Aigle de rivière tué sur les bords du Queurboom et que j'ai nommé Vocifer, par le quel est très criard. 1er voyage page 101. Voyez son histoire N.4 de l'H.N.d.O.d'que.' *Ois.Afr.* pl.4 is the same plate.

Yale 9 *Melierax canorus*: 'Faucon tué sur la côte est d'Afrique et qui se trouve aussi dans l'intérieur des terres. Cet oiseau est remarquable non seulement par un chant extraordinaire, mais par la beauté de son plumage. Voyez son histoire N.27 des l'h.nat. des ois.d'A.que.' Like *Ois.Afr.* pl.27.

Yale 10 'Camp à l'entrée du Poort, où nous tuâmes plusieurs Elephants. 1er voyage page 113.' The same engraving is found in the Desray edition of Levaillant's first Voyage, with printed caption 'Camp à l'entrée du Poort. Grande Chasse d'Elephants. No.8.'

Yale 11 'Camp de Jager Kraal. 1er voyage page 120.' The same engraving is found in the Desray edition of Levaillant's first Voyage, with printed legend: 'Camp à Jager-Kraal dans le pays d'Auteniquois. Tom.1er. pag.236. No.9.'

Yale 12 *Apaloderma narina*: 'Couroucou d'Afrique mâle tué sur les bords du Gamtoos. 1er voyage page 24.' This engraving does not appear to have been published. There is no caption, and the depiction is surrounded by a coloured edge. It could be an earlier version of *Ois.Afr.* pl.228, which is in reverse. Compare UBL 43.

Yale 13 *Apaloderma narina*: 'Couroucou d'Afrique femelle.' This engraving is the reverse of *Ois.Afr.* pl.229. There is no caption, and the depiction is surrounded by a coloured edge. Compare UBL 44.

Yale 14 *Lamprotornis nitens*: 'Etourneau d'Afrique nommé par les Hottentots nabirop, et par les colons europeens Groene Spreeuw. On le trouve très abondamment sur toute la côte des caffres à la rivière Gamtos. 1er voyage page 125. Voyez son histoire N.89 d l'h.nat. des O.d'Afrique.' Like *Ois.Afr.* pl.89, but there is no caption, and the leaves on the branches in the background differ. Compare UBL 40.

Yale 15 'Capitaine de hottentots ou chef de Horde dans toute la colonie dépendante du gouvernement du Cap. 1er voyage page 132.' This engraving was not published. The name of the artist is stated in the bottom right corner: C.Mugot. The same depiction is also known on UBL 50 (engraving) and CT 34 (drawing). +KB 19

Yale 16 'Camp sur les bords du Groote Visrivière ou Grande rivière des Poissons. 1er voyage page 162.' This engraving was added to the Desray edition of the first Voyage, with printed caption: 'Camp sur les bords de la Grande Riviere des Poissons. Tom.Ier. pag.349. No.10.'

Yale 17 *Chrysococcyx caprius*: 'Coucou vert doré. Ce magnifique oiseau est très abondante sur toute la côte de la Caffrerie et dans plusieurs cantons de l'intérieur. Nous l'avions nommé Didric, par le quel son ramage exprime très distinctement ce mot. 1er voyage page 169.' Like *Ois.Afr.* pl.210, not reversed, but without caption and the background is slightly different.

Yale 18 *Aquila verreauxii*: 'Cet oiseau tient du vautour par ses moeurs et par ses caractères physiques de l'aigle, de sorte qui forme un genre intermédiaire entre les deux sortes d'oiseaux. Je l'ai tué dans le pays des caffres. 1er voyage page 184. Voyez son histoire N.6 de l'h.nat.des ois.d'Afrique.' Like *Ois.Afr.* pl.6.

Yale 19 *Lophaetus occipitalis*: 'Aigle huppé tué dans le Caffrerie. 1er voyage page 318. Voyez son histoire N.2 de l'his.nat.des oi.d'Af.' Like *Ois.Afr.* pl.2.

Yale 20 *Creatophora cinerea*: 'Le Porte Lambeau. Oiseau tué sur les bords du Gamtoos et qui se trouve aussi dans le pays des caffres. Voyez son histoire N.93 de l'h.nat. des O.d'A.que.' This engraving was added to the Desray edition of Levaillant's first Voyage, with printed caption: 'Le Porte Lambeau. Tom.2 pag. 243. No.14.'

Yale 21 'Camp à une horde détruite dans le pays des caffres. 1er voyage page 346.' This engraving was added to the Desray edition of Levaillant's first Voyage, with printed caption: 'Camp à une Horde des Caffres détruites. Tom.2 pag. 303. No.17.'

Yale 22 'Vieille hottentote à tabliere, dont le prolongement des grandes lèvres étoit excessif. 1er voyage page 370 et sun.' This engraving is unlike that in the first Voyage, but compare CT 50 and UBL 117.

Yale 23 *Sagittarius serpentarius*: 'Le Secretaire nommé par les colons Slang Vreeter, mangeur de serpens. Cet oiseau est assez commun sur toute la côte est d'Afrique mais il est cependant difficile de le tuer par ce qui est singulièrement rusé. 2ieme voyage page 45. Voyez son histoire N.25 de l'hist.nat.des O.d'Af.' Like *Ois.Afr.* pl.25. fig.12

Yale 24 *Polemaetus bellicosus*: 'Grande aigle tué sur les bords de la grande rivière, ou rivière d'Orange. Voyez son histoire N.1 de l'h.nat. des O.d'A.que.' Like *Ois.Afr.* pl.1 (with leaves on the branches).

Yale 25 *Torgos tracheliotos*: 'Grand V' (no further text!) Like *Ois.Afr.* pl.9.

Yale 26 *Corvus albicollis*: 'Corbeau dont l'espèce paroit se rapprocher du genre des vautours et qui pour cela j'ai nommé corbivau. Cet oiseau est très abondant chez les grands namaquois. Voyez son histoire N.50 de l'hist.N.des Oi.d'Af.' Like *Ois.Afr.* pl.50.

Yale 27 *Neophron percnopterus*: 'Vautour particulier, par la forme de son bec, et qui se trouve dans le pays des grands namaquois, où il est très abondant. Il est familier autour de toutes les hordes sauvages. Son nom Ourigourap signifie corbeau blanc, dans la langue namaquoise. Voyez son histoire N.14 de l'hist.nt.des Oi.d'Af. Second voyage tome 2 page 2.' Like *Ois.Afr.* pl.14.

Yale 28 'Caminouquois, nation hottentote de la tribu des grands namaquois et qui habite au delà de la rivière d'Orange. 2. voyage page 62.' The engraving is without caption and surrounded by a coloured edge. It was signed by C.Mugot. It is identical to CT 52 and UBL 221.

Yale 29 'Femme Caminouquoise.' Like CT 53 and UBL 222.

Yale 30 'Camp à la cotine du garde manger, dans le pays des

Le Secretaire nommé par les Colons Slang Vreter
Mangeur de Serpens. Cet oiseau est assez commun
Sur toute la Cote Est d'afrique mais il est
Cependant difficile de le tuer parcequ'il est
Singulierement rusé.
2ieme Voyage page 45.
Voyez son histoire N.25. de l'hist. Nat des O. d'af...

Fig. 128 Levaillant's text accompanying the plate of the secretary bird *(Sagittarius serpentarius)* in the 'Atlas Supplementaire' (Yale University Library, 12.13).

Caminouquois endroit où je tuai le premier giraffe. 2.voyage tome 2, page 60.' The engraving has no caption. It was signed in the bottom right corner by C.Mugot. It is similar to the frontispiece in the first volume of the first Voyage (1790), but in reverse, and the pose of Levaillant is slightly different.

Yale 31, 32 *Caprimulgus* sp.: 'Crapeau volant d'une très grande espèce tué dans le pays des grands namaquois, sur les bords de la rivière des lions. 2 voyage tome 2. Voyez son histoire N.47 de l'hist. N.lle des Ois.d'Af.' There are two engravings, not one, although both are covered by the same text. They are like *Ois.Afr.* pls. 47, 48.

Yale 33 *Cisticola textrix*: 'Le pincpinc espèce de figuier d'Afrique, et dont le nid est très particulier et du plus construit avec la boure des plantes. Voyez son histoire N.131 de l'hist. N.lle des Ois.d'Af.' Like *Ois.Afr.* pl.131, without caption.

12.14 THE EXPEDITIONS IN SOUTH AFRICA

Levaillant made two extensive journeys into the South African interior, one to the east, the other to the north.[9] Besides, he made some short trips in the vicinity of Cape Town. The only source about these expeditions and the animals seen was his own record published as the *Voyage* in 1790 and the *Second Voyage* in 1795. This is the text which is followed here. All animals seen on the way are given in the same order as in the book, with an attempt to identify them. Page references in 12.14.4 and 12.14.5 are taken from the first French edition published by Leroy, Paris (1790, 2 volumes, 8vo) for the first expedition; and those in 12.14.6 and 12.14.7 from the account of the second expedition published by H.J.Jansen, Paris (1795, 3 volumes, 8vo).

Levaillant's books make good reading, but they are not known for their accuracy. Many details about the routes taken are missing and the chronology is garbled (12.14.2). The routes of the two expeditions have been analysed expertly by Forbes (1950, 1965, especially 1973). His notes are followed here. Just like in the case of the *Oiseaux d'Afrique*, there have been many accusations and questions about the veracity of Levaillant's stories. Part of this discussion, as far as it relates directly to the two published accounts, is reviewed below (12.14.1). Levaillant certainly did not tell us all that we want to know, and he was certainly mixed up in many of his assertions. However, there seems to me no doubt that we can accept his statements about the South African fauna within those limitations.

12.14.1 *Accuracy*

The first *Voyage* (1790) initially had a most favourable reception. This is shown by the large number of editions and translations which appeared soon after (12.3). The early reviews were less than critical, e.g. those in the *Observations sur la Physique* (1789) and the *Mercure de France* (1790). A similar evaluation was made by George Forster (1790:537-538): 'Wenn man diese Reisebeschreibung einmal in die Hand genommen hat, kann man sie nicht ungelesen wieder weglegen, und indem man liest, läuft der Faden der Erzählung so ohne allen Anstoß, ohne alle Unebenkeiten fort, daß die Vorstellung einer unzertrennlichen, gleichsam beseelten, Ganzen dem Leser von Anfang bis zu Ende gegenwärtig bleibt.'

The criticism became more severe at the beginning of the 19th century. In South Africa, Levaillant often stayed with a farmer called Slabber and his family, living in Theefontein. In his account Levaillant had included a vainglorious narrative how he was responsible for killing a dangerous leopard. Latrobe (1818:295) visited Mr.Slabber much later and heard that Levaillant had been a 'very timid and faint-hearted traveller' rather than the 'man of an undaunted spirit' who figured in the books. Barrow (1801:360) was mildly critical about the first *Voyage*, but severely so about the second: 'the materials ... slight as they were, seem to have chiefly been furnished by the publication of an English traveller [Paterson?], whom he pretends to correct; and from an account of an expedition to the northward, sent out by the Dutch government' (the latter maybe Hop's expedition, see 5.78). Later, Barrow (1804:20) retracted his words somewhat, admitting that Levaillant's books were 'replete with valuable matter, and ingenious observations; but they are so jumbled together with fiction and romance' that the true statements were hard to be distilled.

Another traveller, Heinrich Lichtenstein, had much to say about the veracity of Levaillant. For instance, Lichtenstein

9. A recent English recounting of Levaillant's travels was provided by Meiring (1973).

(1811,II:410) reported that Levaillant could not have killed his own giraffe, but that he bought a skin much further to the south from a man called Cornelis Kok, who would have supplied much information about the region north of the Orange River. Again, Campbell (1815:330) criticised the romanticism of the books, while at the same time praising them as 'the best account of the manners and customs of the Hottentots I have seen.'

Two sections in the books are lacking so many details that it has been assumed that Levaillant did not make the journeys described in them. This concerns the section about the 'Pays des Caffres' in the *Voyage*, and that about the 'Pays des Grands Namaquois' in the *Second Voyage*. The latter part especially has been attacked many times, and it is necessary to review briefly the debate about Levaillant's visit to the region north of the Orange River (or southern Namibia). John Campbell (1815:330) mentioned a story which he was told about Levaillant by the widow of the farmer Van der Westhuizen at Kamieskroon. A slightly different rendering of the same instance is found in a footnote by Layard (1867:139), where some of the details are mixed up:

[Levaillant] describes in his travels how he was floated across the swollen river, and his chase after the giraffe. I question much if this account is true. There was living at Camiesberg, within the last few years [ca.1810?], an aged woman named Van Zyl [= Van der Westhuizen], who related to my informant that she well remembered the 'Kleine Franschman' as she called him; that during his stay in that part of the country he lodged entirely at her house; and that he never crossed the Orange River, being too much of a coward to do so. When told that he had stated he had shot a giraffe, she scouted the idea and declared that the skin which he took away was brought piecemeal from the opposite side of the river by his Hottentots. Mrs.Van Zyl was a huge, rawboned woman, who stood upwards of six feet and usually wound up her narration concerning Le Vaillant by laughingly relating how she had horsewhipped the 'Little Frenchman' for attempting some liberties with her.

More recently, Prof.V.S.Forbes studied Levaillant's text, map and drawings in great detail from the geographer's point of view. In his early expositions (1950, 1958, 1965:121-123), he had carefully put forward many arguments to show that Levaillant might never have reached the Orange River and certainly did not cross it. The published narrative was considered far too inaccurate to have been written by an eye-witness, while the distances said to have been travelled (all the way north to Rehoboth) were totally impossible. This has been the accepted opinion. Grant (1957), however, put Levaillant in a more favourable perspective and tried to trace his route in Namibia on a modern map, while giving some ornithological reasons why Levaillant must have performed the journey.

In 1973, Forbes partly revoked his earlier criticism after studying the watercolours preserved in Cape Town. Thus it became clear that Levaillant reached the Orange River and his excursion to the country north of that river no longer appeared impossible. The book narrating the second expedition devotes a large part of the text to the observations about Great Namaqualand (II,269-325, 343-426 and III,1-306). According to Levaillant, he first crossed the river on 28 October (1783) returning three weeks later to deposit his new giraffe skin safely. He went northwards again on 14 December for a journey lasting four months.

Notwithstanding many questions, I do not find it impossible to believe that Levaillant journeyed into southern Namibia. Considering that he reached the Orange River at Ramans Drift, the opposite would be more unlikely. Levaillant could not leave his only chance to visit a region which was almost unknown and probably never before visited by a Frenchman. However, it would appear difficult to pinpoint the localities on a modern map, where he said to have observed or collected certain animals. Any attempt in that direction will never gain general acceptance because there must always remain a serious amount of well-founded doubt. While admitting the observations in Levaillant's book as possibly true, the narrative is too inaccurate to allow any zoogeographical conclusions beyond the most general.

12.14.2 *Chronology*

A major reason to suspect fabrication of the Travels is the obvious impossibility of the dates supplied in the books. This is not immediately evident when reading them. Especially the description of the first Voyage gives the impression that we are following Levaillant's footsteps day by day. There are, of course, some very obvious misprints, like his stated departure from Holland in December 1781 instead of 1780, and the celebration of new year's day on the Little Fish River in 1782 rather than 1783. However, when one studies the text closely, the only possible conclusion is that not all dates provided can be true. It has not been possible to correct them, because there is very little external evidence and certainly nothing written by contemporaries about meeting Levaillant in the interior or about his departures/arrivals in Cape Town.

The chronology of Levaillant's expeditions has been discussed in a positive way by Grant (1957) and in a negative way by Forbes (1950, 1958, 1965, 1973). Both approaches seem to be equally profitable. The results are similar. Whichever dates we accept, either Levaillant's own or adjusted ones, there must always remain a serious amount of doubt. In the analysis that follows below, the dates given are those provided by Levaillant. These dates are not of great importance in the context of the present study and it may suffice to emphasize the general doubts about their accuracy.

Levaillant gives us the following information about his travels from the time he left Paris until his return there.

Departure from Paris	17 July 1780
Departure from Holland	19 December 1780
Arrival in Cape Town	14 April 1781
Stay at Saldanha Bay	10 May - 3 August 1781

First expedition

Departure from Cape Town	18 December 1781
Return to Cape Town	2 April 1783

According to Forbes (1973:94), the date of departure may be considered correct, while he probably returned in October 1782. Forbes arrives at this last date because Levaillant stated to have bid farewell to Boers on 25 October 1783 while the event actually took place on 12 April 1783. It would have happened six months after the return from the first expedition, which therefore should have been in October 1782.

Second expedition

Departure from Cape Town	15 June 1783
Stay near Orange River	28 October 1783 - May 1784

Return to Cape Town	December 1784
Start of return journey	17 July 1784
Arrival in Holland	18 November 1784
Return to Paris	January 1785

Considering the sailing from Cape Town in July 1784, the return from his second expedition in December 1784 is manifestly impossible. Grant (1957:88) adjusted the date of return to 6 June 1784, while Forbes (1973:95) thought late 1783 or early 1784 more likely.

12.14.3 *Nomenclature*

Levaillant mentioned a large number of mammals and birds in his books and a few were described more extensively. He only indicated them by names in French. Like in his other books, the animals are never given a binomen following the Linnean system of classification and nomenclature. Three translators of the Voyages (J.R.Forster, J.D.Pasteur, S.Ödman) found this state of affairs unsatisfactory and added Latin names of at least some animals, either in the text or in the index. Fortunately for zoologists today, they were careful in naming only those species known already, with very few exceptions. The names found in those works were added in the analyses of Levaillant's animals below in the appropriate places.

(a) *J.R.Forster's translation of 1790, 1796*
Forster was well appointed both to translate and to annotate Levaillant's travels. His remarks were often more telling about his own activities than about the work of Levaillant, but they are still interesting. Forster added scientific names of some species mentioned in the text, but he left others without a name. Apparently, he mainly used names taken from Linnaeus (1758), Gmelin (1788-1789), Pallas (1776) and others. There were a few new names, like *Antelope capreolus* (1790b:71) still in use, and the genus *Turako* (1796,I:254) to be regarded a synonym of *Tauraco* Kluk, 1779. The first example above shows Forster's spelling of *Antelope* rather than *Antilope*.

(b) *Pasteur's Dutch translation of 1798*
A Dutch translation of Levaillant's voyages was prepared by Jan David Pasteur (1753-1804). The first voyage (2 vols) appeared in 1791, while the three volumes describing the second voyage were published in 1796, 1797 and 1798 respectively. The text is without annotations or footnotes. Pasteur, however, at the end of the fifth volume (1798) presented a 'Bladwijzer van de voorwerpen van natuurlijke historie, door Le Vaillant op zijne reizen waargenomen, gerangschikt naar het Systhema Naturae Linnaei edit. Gmelin, Lips. 1788' (pp.355-364).[10]

The list gives scientific names, Dutch names and the page references of the different animals, starting with Mammalia followed by Aves, Amphibia, Pisces and Vegetabilia. Comparison of the names used by Pasteur and those in J.F.Gmelin's edition of the *Systema Naturae* (1788-1789) showed that the latter is always followed. The index therefore does not include any new names. Of course, in some cases Pasteur was unable to find a certain species in the work by Gmelin. He then names the genus only, e.g. '*Canis* ..., Strandwolf' or '*Vultur* ... nova spec., Gier.' His names too are indicated in the following analysis for further reference.

(c) *Ödman's Swedish translation of 1795*
The index of the Swedish translation prepared by Samuel Ödman in 1795 includes a few scientific names followed by the page reference. This does not include any previously unknown names.

12.14.4 *Excursions around the Cape in 1781*

On 14 April 1781, Levaillant's ship arrived within view of Table Mountain. From May until the beginning of August 1781 he remained on board the *Middelbourg* in Saldanha Bay while making short excursions on the mainland. On 21 July 1781 the ship was attacked by the English fleet.Levaillant was ashore at the time, but he saw all his possessions and his collections disappear in the flames 'à deux mille lieues de ma femme, de mes enfans' (I,25).[11] He then meets 'Slaber' in whose house at Theefontein he finds a friendly welcome. Afterwards he went to Cape Town where he stayed with Boers and talked to Gordon. He climbed Table Mountain and visited Robben Island.

While introducing his readers to South Africa in the first part of volume I, Levaillant mentioned a number of antelopes found at some distance from the Cape and probably not seen until later. These are named by Forster (1790b:21): steenbock (*A.Dama*); duyker (*A.Grimmia*); rehbock (*A.cervicapra*) and grysbock (*A.Dama* var. et *melanotis*). The last name is new and appears again later in the German translation.

There are a few comments on the fish (I,10) probably representing those eaten by the crew or regularly caught by the local inhabitants. The indications may be too general for precise identification.

'le Rooman, poisson rouge de la baie Falso'
  Forster (1790b:21): *Sparus pagrus* L.
  Pasteur (1798:361): *Sparus pagrus*.
'Le Klepvis qui n'a point d'écailles'
  Forster (1790b:21): *Blennius capensis* nova spec.
  Pasteur (1798:361): *Blennius capensis*.
'le Steenbrasen'
  Forster (1790b:21): *Labrus* sp.
  Pasteur (1798:361): *Labrus* ...
'le Stompneus'
  Forster (1790b:21): *Scioena umbra* L.
  Pasteur (1798:361): *Scioena umbra*.
'huîtres', very rare, in False Bay only
'oreilles de mer, Klepkousen'
  Forster (1790b:21): *Haliotis* L.

[1] Saldanha Bay 33°5'S, 18°E
Physeter macrocephalus, 'cachalot' (I,16) or other whales
  Forster (1790b:29): *Delphinus Orca* or *D.Tursio*.
Lepus sp., 'lapins et lièvres' (I,16) seen on Schaapen Eyland
Raphicerus campestris, 'steenbok' (I,16)
  Forster (1790b:21): *A[ntelope] Dama*
  Pasteur (1798:356): *Antilope Dama*.
Francolinus sp., 'perdrix' (I,16)
Spheniscus demersus, 'manchots' (I,21)
  Pasteur (1798:359): *Alca impennis*

10. Translated: 'Index of the objects of natural history, observed by Le Vaillant during his journeys, put in order according to the Systema Naturae Linnaei edit. Gmelin, Lips.1788.'

11. The burning of the ship the *Middelburg* was depicted on an oil painting by Thomas Luny (1759-1837) reproduced by Kennedy 1967,III:235.

Panthera pardus, 'panthère' (I,16)
Pasteur (1798:356): *Felis pardus*
Arctocephalus pusillus, 'lion marin' (I,16)
Pasteur (1798:355): *Phoca leonina*
Phoca sp. (?), 'veau marin' (I,16)
Pasteur (1798:355): *Phoca vitulina*
The same locality also in *Oiseaux d'Afrique*, pls. 10, 51 and 129.

[2] Theefontein 33°12'S, 18°22'E.
Panthera pardus, 'panthère ou tigre' (I,29-32)
The male killed was 7 feet 2 inches long, including the tail, and 2 feet 10 inches in circumference. According to Levaillant, the 'Luypar' or 'Léopard' was a smaller species, also called 'Chat tigre', which he identified as Buffon's Osselot (*Felis serval*).
Pasteur (1798:356): *Felis pardalis*.

[3] Table Mountain 33°58'S, 18°25'E
Neophron percnopterus, 'percnoptère (I,35)
Pasteur (1798:357): *Vultur percnopterus*
Papio ursinus, 'bawian' (I,35)
Pasteur (1798:355): *Simia sphynx*.

[4] Robben Island 33°49'S, 18°22'E
Arctocephalus sp., 'chien marin' (I,45)
Francolinus sp., 'perdrix' (I,46), very numerous
Pterocles namaqua, 'caille à trois doigts' (I,46)
Pasteur (1798:360): *Tetrao coturnix*.
Levaillant also saw a black snake, 4 to 5 feet long, not poisonous (I,45).

12.14.5 *The first expedition*

On his first major expedition in the South African interior, Levaillant travelled in an easterly direction. He left Cape Town on 18 December 1781, accompanied by five Hottentots including one called Klaas, and by Swanepoel, an ex-convict released by the fiscal W.C.Boers to help Levaillant. He travelled towards the hot springs at Caledon, and across the Steenboks River to the Soetemelksvlei. From there he reached Swellendam, where he stayed with the landdrost, Daniel van Ryneveld. In this place he bought a tame baboon which listened to the name Kees. He continued his journey on 12 January 1782 passing Grootvadersbos on the way to the Duiwenhoks River (near the present Heidelberg). He was delayed at the Gous or Gourits River by flooding before proceeding to the Mossel Bay. From there he followed the coastline eastwards, crossing the Klein Brak and Groot Brak rivers. He then entered what he called the 'Pays d'Auteniquoi'. This region may be interpreted to mean the area around the present town of George, being the place where he spent most of his time collecting specimens. On his map, however, it extended eastwards up to the Plettenberg Bay. In this region, Levaillant stayed some six weeks near the Company's Post, located 3 km east of the present center of George (Forbes 1973:39). His first camp probably was about 10 km from the Post, while later he moved some 8 km to stay at Pampoen Kraal.

From Pampoen Kraal Levaillant made an excursion to Plettenberg Bay starting on 30 April 1782. He crossed the Touws River and the Swart River and continued east to the bay. He camped around there for about a month. He returned following a slightly different route passing the Poort and Rondevlei. After a brief stay at Pampoen Kraal, Levaillant crossed the Outeniqua Mountains into the Langkloof, which he followed to the vicinity of the present Port Elisabeth. In the Langkloof, he crossed the Keurboom River and the Kromme River, and camped on the banks of the Gamtoos River from 7 August to 11 September 1782.

After reaching the Swartkops River between Perseverance and Despatch, Levaillant went to the north crossing the Coega River and the Sundays River before passing Bruintjeshoogte. He then went to the Little Fish River near Somerset East and reached the Great Fish River on 10 October. The next day, he ascended Slagtersnek Pass to reach his camp at Koks Kraal on the banks of the Great Fish River.

Here Levaillant said that he entered the 'Pays des Caffres' or Caffraria. He was taken by some Gonaquois people to see their homes. There are few details in the book which can help to trace his itinerary. Forbes (1973) suggested that Levaillant may have reached the Winterberge, then went south to regain the Great Fish River at Carlisle Bridge. It is unnecessary to discuss whether he reached 'Natal' on the east coast. If the longitudes on his map would point in that direction, it shows cartographical incompetence rather than deliberate inaccurary. His 'Terres de Natal' on the map are found roughly between Port Elisabeth and East London, but Levaillant did not reach to that area. All localities in Levaillant's 'Pays des Caffres' are uncertain as to their exact geographic position.

After the excursion into Caffraria, Levaillant spent some days at Koks Kraal. He started his return journey to the Cape on 4 December 1782. He first went in the direction of the Sneeuwbergen passing Bruintjeshoogte and crossing the Blijde River and the Vogel River until he came to the Plat River, where he stayed until 2 February. Levaillant then travelled through the Karroo. He reached the Sundays River some 10 km downstream from Graaff-Reinet and then the Swart River near the present Prince Albert. He called this region the 'Camdeboo' on his map, a name which is mentioned several times in the *Oiseaux d'Afrique*.

The last stage of the journey went past Touws River, across the Hottentotskloof to the Bokkeveld, past the Breede River to the present Tulbagh. Levaillant reached Theefontein on 27 March and Cape Town on 2 April 1783.

[5] 'Ouwe-Hoeck' between Somerset West and Caledon
Pelea capreolus, 'reebock' (I,54). Levaillant shot a male with horns of 5-6 inches length.
Forster (1790b:71): *Antelope capreolus*, nova species. The first name of this species.
Ödman (1795): *Antilope capreolus*
Pasteur (1798:357): *Antilope capreolus*, nova species
Damaliscus dorcas, 'bontebock, *Antilope scripta* de M.Pallas' (I,54). This is one of the very rare instances in which Levaillant used a scientific name. The confusion of species was common.
Forster (1790b:72): *Antelope scripta*
Ödman (1795): *Antilope scripta*
Pasteur (1798:356): *Antilope scripta*.
Alcelaphus buselaphus, 'bubale, *Antilope bubalis*' (I,54)
Forster (1790b:72): *Antelope Bubalis*
Ödman (1795): *Antilope dorcas*
Pasteur (1798:356): *Antilope bubalis*.
Equus zebra, 'zèbres' (I,55)
Struthio camelus, 'autruche' (I,55)

[6] Soetemelksvlei 34°8'S, 19°45'E
Hippotragus leucophaeus, 'blawe-bock, bouc bleu'; described by Pennant (I,58). Levaillant saw only 2 specimens here, and the skin of another from this same locality while in Cape Town. All three were males. He preserved the skin of the specimen which he shot.
Forster (1790b:75): *Antelope glauca* Forster, *leucophaea* Pallas
Pasteur (1798:356): *Antilope leucophaea*.
Damaliscus dorcas, 'bontebock' (I,61) came to drink in groups of over 2000 animals.

Alcelaphus buselaphus, 'bubales' (I,61) in thousands.
Equus zebra, 'zèbres' (I,61) seen in thousands.
Struthio camelus, 'autruches' (I,61).
Testudo sp., 'tortues' (I,61).
Compare *Oiseaux d'Afrique*, pl.181.

[7] Grootvadersbos 34°0'S, 20°47'E
This locality mentioned in *Oiseaux d'Afrique*, pl.253.

[8] Duiwenhoks River 34°5'S, 20°57'E
Francolinus sp., 'perdrix' (I,70) used as food.
Not identified, a blackish brown antilope, the size of a goat, with some white hairs on the thighs (I,70).
Philantomba monticola, 'une autre espèce plus petite' (I,71).
Pasteur (1798:357): *Antilope pygmaea.*
This locality mentioned in the *Oiseaux d'Afrique*, pls.72, 132, 160, 167, and 248.

[9] Gourits River c. 34°11'S, 21°45'E
Francolinus capensis, 'la grande espèce (de Perdrix) que les habitans du Cap ont nommé Fésants' (I,72)
Forster (1790b:86): *Tetrao capensis*
Ödman (1795): *Tetrao capensis.*
This locality mentioned in the *Oiseaux d'Afrique*, pl.126.

[10] Mossel Bay 34°10'S, 22°10'E
Levaillant saw oysters and fishes (I,73).
Crocuta crocuta, 'hienne' (I,73), heard crying at night.

[11] Groot Brak River 34°4'S, 22°14'E
Pelecanus sp., 'pélican' (I,74)
Forster (1790b:89): *Pelicanus*
Ödman (1795): *Pelicanus onocrotalus*
Phoenicopterus ruber, 'des Phoenicopteres ou Flamans' (I,73)
Forster (1790b:89): *Phoenicopterus ruber* L.
Ödman (1795): *Phaenicopterus ruber.*
This locality mentioned in the *Oiseaux d'Afrique*, pls. 126, 234, 261, 294 and 300.

[12] Pampoen Kraal 33°57'S, 22°32'E
The records relating to the 'Pays d'Auteniquoi' in general may be considered here too. Levaillant recorded the absence of elephants, buffaloes and lions.
Tragelaphus scriptus sylvaticus, 'boschbok' (I,82)
Forster (1790b:100): *Antelope sylvatica*
Ödman (1795): *Antilope sylvatica*
Pasteur (1798:356): *Antilope sylvatica*
Philantomba monticola, 'une autre espèce plus petite' (I,82)
Francolinus afer, 'faisan rouge' (I,82).
Pasteur (1798:360): *Tetrao* ..., roode Faisant.
Crocuta crocuta, 'hiennes' (I,82)
Panthera pardus, 'tigres' (I,82)
Tauraco corythaix, 'tauraco' (I,79), description of its hunt.
Pasteur (1798:358): *Cuculus persa*
This locality as 'Pays d'Auteniquoi' mentioned in the *Oiseaux d'Afrique*, pls. 2, 3, 7, 14, 18, 24, 38, 49, 72, 74, 104, 106 f.2, 112 f.1, 119, 121 f.1, 122, 125, 151, 156, 160, 162, 184 f.1, 228, 241, 250, 264, 269 and 294.

[13] Swart River 33°58'S, 22°48'E
Syncerus caffer, 'buffle' (I,89). Levaillant shot one, and a Hottentot companion another.
Pasteur (1798:357): *Bos Bubalis.*
Egretta garzetta, 'petit héron blanc' (I,94)
Forster (1790b:110): *Ardea cocoi* L.
Pasteur (1798:359): *Ardea cocoi*
Egretta alba, 'grande aigrette' (I,94)
Forster (1790b:110): *Ardea Herodias* L.?
Pasteur (1798:359): *Ardea herodias.*
Loxodonta africana, 'élephans', seen sparingly (I,94)

[14] Plettenberg Bay 34°S, 23°24'E
Alcelaphus buselaphus, 'bubales' (I,96), 25-30 observed.
Syncerus caffer, 'buffle' (I,96), seen in big groups
Haliaeetus vocifer, 'vocifer' (I,100-102). The first specimen was shot near the camp at the mouth of the Keurbooms River; Levaillant dissected it.
Forster (1790b:116): *Falco Haliaëtus* L.
Pasteur (1798:357): *Falco Haliaëtos.*
Tragelaphus scriptus, 'bos-bock' (I,102)
Lycaon pictus, 'chien sauvage' (I,102), 9 specimens seen
Pasteur (1798:355): *Canis familiaris ferus.*
Loxodonta africana, one 'éléphant' was shot (I,105)
This locality mentioned in the *Oiseaux d'Afrique*, pls. 7, 49, 122, 157 and 167.

[15] The Poort 34°2'S, 23°13'E
Loxodonta africana, 'élephans' (I,112). Levaillant shot 4 elephants in this region.
Pasteur (1798:355): *Elephas maximus.*
This locality was mentioned in the *Oiseaux d'Afrique*, pl.157.

[16] Gamtoos River 33°48'S, 25°E
Lamprotornis nitens, 'etourneau cuivré' (I,124)
Pasteur (1798:360): *Sturnus capensis*? Koperkleurige spreeuw
Nectarinia amethystina, 'sucrier à gorge améthiste' (I,124)
Pasteur (1798:358): *Certhia flaveola*, nov.spec. Suikervogeltje met den purperen hals.
Centropus superciliosus, 'couroucoucou' (I,125)
Halcyon albiventris, 'martin-chasseur' (I,125)
Francolinus capensis, 'faisan' (I,125)
Tragelaphus scriptus, 'bos-bock' (I,125)
Syncerus caffer, 'buffle' (I,125) said to be common
Loxodonta africana, 'elephans' (I,126), a female covered with red sand was shot, with height of 9 feet 3 inches.
The *Oiseaux d'Afrique* records many birds from the Gamtoos River: plates 34, 49, 70, 93, 118, 152, 199, 219, 228, 250, 257, 258, 263, 271, 272 and 299; as well as *Ois.Paradis*, I pl.30.

[17] Louri River 33°49'S, 25°6'E
This locality was mentioned in the *Oiseaux d'Afrique*, pls. 271, 272 and 298.

[18] Swartkops River 33°46'S, 25°30'E
Levaillant mentioned the absence of the rhinoceros.
Hystrix cristata, 'porc-épic' (I,138)
Ödman (1795:88): *Hystrix cristata*
Pasteur (1798:356): *Hystrix cristata.*
To this may be added the birds treated in the *Oiseaux d'Afrique* on plates 31, 64, 118, 120, 137, 162, 186, 213, 242 and 297.

[19] Coega River 33°40'S, 25°30'E
Levaillant saw here some very small turtles (I,139)
Panthera leo, 'lions' (I,140, 142), very common here
Syncerus caffer, 'buffles' (I,140), 3 shot.
Alcelaphus buselaphus, 'bubale' (I,140), 2 shot
Numida meleagris, 'pintades' (I,140, 141) resembling the European species
Forster (1790b:155): *Numida meleagris*
Ödman (1795:89): *Numida meleagris*
Pasteur (1798:364): *Numida meleagris.*
Lybius sp.(?), 'des barbus' (I,140)
Forster (1790b:155): *Bucco capensis* L.
Ödman (1795:89) and Pasteur (1798:358): *Bucco capensis*

[20] Sundays River c. 33°S, 24°55'E
Tragelaphus strepsiceros, 'coudou' (I,142)
Forster (1790b:157): *Antelope strepsiceros*
Ödman (1795:90): *Antilope strepsiceros*
Pasteur (1798:358): *Antilope strepsiceros.*
Crocuta crocuta, 'hiennes' (I,144)
Panthera leo, 'lions' (I,144), 2 specimens seen.
Antidorcas marsupialis, 'gazelles springbock' (I,144), many seen, 7 killed.
Forster (1790b:159): *Antelope Pygargus* Sparrm. *Euchore* Forst.
Pasteur (1798:356): *Antilope pygarga.*

The *Oiseaux d'Afrique* adds the same species as in the case of [18] the Swartkops River, only adding those described with plates 100 and 257.

[21] Bruintjeshoogte 32°40'S, 25°20'E
He was here on 6 October (1782?) according to the *Oiseaux d'Afrique* (pl.95 fig.2). From this place, Levaillant in the *Oiseaux d'Afrique* recorded the birds described on plates 95 f.2, 104, 108, 132 and 257.

[22] Little Fish River 32°45'S, 25°35'E
The cuckoo *Chrysococcyx caprius* (*Ois.Afr.* pl.210) was first seen here.

[23] Great Fish River 32°45'S, 26°48'E
Crocuta crocuta, 'hiennes' (I,162, 164)
Tragelaphus strepsiceros, 'coudoux' (I,162, 163)
Hippopotamus amphibius, 'hippopotames' (I,162), tracks seen
Antidorcas marsupialis, 'gazelle de parade' (I,162)
Struthio camelus, 'autruche' (I,162)
Panthera leo, 'lion' (I,164).
Canis mesomelas, 'jakal' (I,164).
The bird depicted in the *Oiseaux d'Afrique* (pl.107 f.2) is stated to have been found in this place. This general locality may also apply to the animals found at Koks Kraal, on the same river.

[24] Koks Kraal 32°37'S, 25°47'E
Poicephalus robustus, 'perroquet' (I,167) said to be a new species, but in the *Ois.Perroquets* (II, pl.130) recorded between the [11] Brak River and [27] Caffraria.
Pasteur (1798:358): *Psittacus viridis*, nov.sp.
Papio ursinus, 'bavian' (I,167)
Caprimulgus sp., 'crapand-volant' (I,167)
Forster (1790b:183): *Caprimulgus* L.
Pasteur (1798:360): *Caprimulgus*, nov.sp.
Pogoniulus pusillus, 'barbu très petite' (I,169)
Forster (1790b:183): *Bucco* L.
Pasteur (1798:358): *Bucco capensis*
Cuculus clamosus, 'coucou nommé le Criard' (I,169)
Pasteur (1798:358): *Cuculus* ... nov.sp.
Chrysococcyx caprius, 'coucou verd doré, coucou didric' (I,169)
Forster (1790b:183): *Cuculus nitens*
Pasteur (1798:358): *Cuculus auratus*
Varanus niloticus, 'léguane' (I,176)
Hippopotamus amphibius, 'hippopotame' (I,176, 177), one killed
Panthera leo, 'lions' (I,180), 2 seen at night
Indicator sp., 'coucou indicateur' (I,182)
Pasteur (1798:358): *Cuculus indicator*, var:
Aquila verreauxii, 'aigle noir' (I,184), killed by Klaas
Pasteur (1798:357): *Falco* ... nov.sp.
Terpsiphone viridis, 'gobe-mouche roux à longue queue' (I,190)
Forster (1790b:205): *Muscicapa* L.
Pasteur (1798:360): *Muscicapa* ... nov.sp.
Ardeola ralloides, 'héron' (I,193)
This locality was mentioned in the *Oiseaux d'Afrique*, pls. 107 f.2, 221, 263, 271 and 272.

[25] Country of the Gonaquois, area north-east of Somerset East
Cuculus clamosus, 'coucou ... criard, espèce nouvelle' (II,199). The bird was also introduced as new in vol.I, p.169 during the stay at [24] Koks Kraal; the colour 'brun noir' does not seem to allow a different identification.
Alcelaphus buselaphus, 'bubale' (II,199), one killed.
Levaillant saw many flycatchers and touracos (II,199).

[26] Camp du Massacre
Tragelaphus scriptus, 'bos-bock' (II,317)
Philantomba monticola, 'noumetje' (II,317)
Lophaetus occipitalis, 'aigle avec une huppe' (II,318)
Halcyon albiventris, 'martin chasseur' (II,318)
This locality was mentioned in the *Oiseaux d'Afrique*, pl.169.

[27] Caffraria, roughly the region around Adelaide.
Antidorcas marsupialis, 'springbock' (II,310, 319)
Eupodotis caerulescens, 'outarde' (II,310)
Pasteur (1798:360): *Otis* ... nov.spec.
Cuculus sp., 'coucou nouveau' (II,313)
Pasteur (1798:358): *Cuculus* ... nov.sp.
Connochaetes gnou, 'gazelle gnou' (II,313, 314, 319)
Forster (1790b:165): *Antelope gnu* Sparm. *Bos Poephagus* Forst.
Ödman (1795:94): *Bos gnu*
Pasteur (1798:356): *Antilope gnu*
Struthio camelus, 'autruche' (II,319)
Lycaon pictus, 'chien sauvage' (II,319), group of 17 animals
Neotis denhami, 'grande outarde' (II,323), one killed
Pasteur (1798:360): *Otis Rhaad*?
Naja nivea, 'kooper-kapel' (II,326)
Pasteur (1798:360): *Coluber naja*
A large number of birds in the *Oiseaux d'Afrique* is recorded from Caffraria as a general eastern locality, i.e. those on plates 7, 22, 27, 34, 36, 70, 89, 93, 104, 123, 124, 137, 147, 148, 151, 153, 154, 166, 179, 195, 204, 206, 210, 219, 222, 226, 228, 234, 241, 248, 250, 251, 257, 258, 261, 266, 271, 272, 295 f.2 and 300. Six of these species are unknown from South Africa.

[28] Little Fish River 32°43'S, 25°28'E
Connochaetes gnou, 'gnou' (II,348)
Antidorcas marsupialis, 'springbock' (II,348)
Phoeniculus purpureus, 'le mocqeuer, uyt-lager' (II,348)
Pasteur (1798:360): Spec. non definit., de uitlagher.
Poicephalus robustus, 'perroquet' (II,350)
Tauraco corythaix, 'touraco' (II,351), plentiful.
Tockus alboterminatus, 'calao' (II,351) as a new species.
Pasteur (1798:358): *Buceros Rhinoceros*, nov.spec. Calao.
Cossypha dichroa, 'merle à ventre orangé, Pit-me-vrou' (II,351)
Pasteur (1798:360): *Turdus merula*, nov. spec.
Cercopithecus aethiops, 'cercopithèque à face noire' (II,351), one killed
Pasteur (1798:355): *Simia Cercopythecus* (also used for chacma baboon)

[29] Vogel River 32°35'S, 25°9'E
Antidorcas marsupialis, 'springbock' (II,359), very numerous
Panthera leo, 'lions' (II,360), tracks seen
Taurotragus oryx, 'élan, kanna' (II,361), 8 specimens
Forster (1790b:291): *Antelope Oryx*
Pasteur (1798:356): *Antilope oreas*

[30] Plat River 32°32'S, 24°57'E
Euplectes progne, 'très-belle espèce de veuve' (II,366)
Pasteur (1798:360): *Emberiza paradisea*, nov.spec.
This locality was mentioned in the *Oiseaux d'Afrique*, pl.212.

[31] Melk River 32°30'S, 24°45'E
Chrysococcyx caprius, 'coucou verd doré' (II,373)

[32] Swart River
Eupodotis caerulescens, 'cannepetière d'une espèce nouvelle' (II,374)
Pasteur (1798:360): *Otis Tetrax*, nov.spec.

[33] Swart River 32°17'S, 24°29'E
Taurotragus oryx, 'elan gazelle' (II,376)
Struthio camelus, 'autruche' (II,378)
Lepus sp., 'lièvre' (II,380)

[34] Kriga Fonteyn or Beervlei 33°4'S, 23°28'E
Pterocles namaqua, 'perdrix namaquoise' (II,382)
Pasteur (1798:360): *Tetrao bonasia*

[35] Camdeboo, between Graaff Reinet and Aberdeen
This locality is mentioned for several species in the *Oiseaux d'Afrique*, i.e. plates 14, 27, 124, 138, 200, 206, 219 and 242.

[36] Karroo, between Aberdeen and Laingsburg
A locality mentioned for several species in the *Oiseaux d'Afrique*, i.e. plates 14, 27 and 128.

[37] Buffels River 33°12'S, 20°51'E
Levaillant saw many kinds of waterbirds, like ducks, herons, brown storks and flamingoes, as well as many partridges (II,386-387). This

locality was mentioned in the *Oiseaux d'Afrique*, pl.257.

[38] Touws River 33°22'S, 20°3'E
Levaillant saw 'foulques et bécassines' (II,389).

[39] Bokkeveld c. 33°20'S, 19°25'E
Antidorcas marsupialis, 'spring-bock' (II,389), numerous.

12.14.6 *Excursions around the Cape in 1783*

The period between Levaillant's first and second expeditions was described in volume I of the *Second Voyage* (1795). He made several short excursions around the Cape. He climbed Table Mountain together with R.J.Gordon. On another occasion he again went to Table Mountain and proceeded over the mountains to Cape Point. He was a bit disappointed about the birds seen on the Cape Peninsula because they resembled those of other regions. Levaillant also visited the beach near Cape Town.

[41] Table Mountain 33°58'S, 18°25'E
Monticola rupestris, 'merle de roche' (I,114)
Pasteur (1798:358): *Lanius infaustus*, nov.spec.
This locality was mentioned in the *Oiseaux d'Afrique*, pl.103.

[42] Cape Peninsula
Geocolaptes olivaceus, 'pic avec ventre rouge' (I,144)
Pasteur (1798:358): *Picus* ... nov.spec.
Papio ursinus, 'bavian' (I,145)
Oreotragus oreotragus, 'kainsi, klipspringer' (I,145)
Forster (1796:132): *Antelope oreotragus*
Raphicerus melanotis, 'grysbok' (I,145), in valleys
Forster (1796:132): *Antelope dama*, var. *grisea*
Pasteur (1798:356): *Antilope dama*, variet.
Sylvicapra grimmia, 'duyker' (I,145), in valleys.
Forster (1796:132): *Antelope grimmia*
Pasteur (1798:357): *Antilope grimmia*
Crocuta crocuta, 'hienne' (I,145) heard at night
Panthera pardus, 'panthère' (I,145) in the dunes around False Bay.
Francolinus capensis, 'perdrix' of the large species or pheasant (I,145).

[43] Waterfront near Cape Town
Levaillant mentioned a number of waterbirds, some in such general terms that they are difficult to identify with much certainty.
Hydroprogne caspia, 'hirondelle de mer' (I,137)
Forster (1796:125): *Sterna Hirundo* L.
Pasteur (1798:359): *Sterna*, zee-zwaluw
Not identified, 'fregattes' (I,138)
Pasteur (1798:359): *Pelicanus aquilus*
Diomedea sp., 'albatros' (I,138)
Forster (1796:125): *Larus* L.
Pasteur (1798:359): *Larus tridactylus*
Morus capensis, 'fou blanc' (I,138)
Forster (1796:125): *Pelicanus bassanus*
Pasteur (1798:359): *Pelicanus bassanus*.
Pelecanus rufescens, 'pélican' (I,138)
Pasteur (1798:359): *Pelicanus onocrotalus*.

12.14.7 *The second expedition*

Levaillant's second expedition was in a northerly direction towards the Orange River. He was accompanied by some 18 people, including Klaas as head of the Hottentots, and Swanepoel to direct the wagons. He started on 15 June 1783 from Theefontein. He went through the Zwartland to the region called Twenty-four rivers. After climbing the Piketberg, he followed the Bergvallei River northwards until he reached Valentinusfontein where he stayed with a farmer, Josias Engelbregt. He was in Heerenlogement around 4 July 1783. In the grotto there, Levaillant followed the example of his predecessors by writing his name on the wall, as 'F. VAILANT 1783' (Pearson 1912:44 with illustration, and Kirby 1942:366).

Levaillant crossed the Olifants River at Vredendal, past 'Vleermuysklip' on the north bank of the Hol River, to a place called Krekenap or Koekenaap. From there he made an excursion to the mouth of the Olifants River. He continued northward to Krakeelklip and Oliphantsklip. In this dry region, Levaillant met Klaas Baster, whose occupation is not known but judging from the name, he must have been of mixed blood. R.J.Gordon knew Baster and Levaillant carried a letter of introduction from him. Levaillant stayed some three weeks in the camp of Klaas Baster, which did not have always the same location. Due to the dryness and lack of water, Swanepoel had stayed behind with the waggons. When he reached Baster's camp, he was still weak and suggested that the only cure could be to drink the blood of a rhinoceros. This was supposed to heal fractures and all kinds of internal ailments (Levaillant 1795,II:91).

The party continued to travel northwards. Levaillant went to the house of a farmer called Van der Westhuizen, which may have been located at Ellenboogfontein, some 6 km west of Kamieskroon. The next stop was the 'Fontaine des Gélinottes' (Matjesfontein) before reaching the Kaussi or Buffels River. Levaillant then entered the country of the Little Namaquois, a general indication roughly similar to the N.W.Cape Province. He travelled past the present Springbok northwards to the Orange River. This river was first seen near Goodhouse, but lacking good grazing, Levaillant soon moved some 14 km upstream to Company's or Ramans Drift. Forbes (1973:82) provided some interesting evidence, including aerial photographs, that Levaillant indeed reached there. The doubts and suggestions concerning Levaillant's excursion north of the Orange River have been dealt with above (12.14.1). In his description of Great Namaqualand (southern Namibia), Levaillant mentioned many animals. In general, these must have been seen in the region around Warmbad. In the following analysis, I divide the records according to the places mentioned in Levaillant's text, without giving further details where these may have been located.

After his first excursion north of the Orange River, Levaillant returned to his camp on the south bank to deposit his collections: 'Ces oiseaux, ces quadrupèdes, ces insectes qui je m'étois procurés depuis mon départ du Cap, cette giraffe dont la conquête m'avoit causé tant de joie, enfin cette collection précieuse et chérie' (Levaillant 1795,II:345). He once again returned to the northbank, but again it is not certain where exactly he went.

Time had come to return to the Cape. This journey was described rather briefly. He passed the Groen River and made an excursion to the lake at Verloore Vlei near Elandsbaai. He then crossed the Berg River to reach again at Theefontein. He stated that he returned to Cape Town after an absence of 16 months.

[44] Zwartland 33°20'S, 18°25'E
Alcelaphus buselaphus, 'bubale' (I,187)
Forster (1796:160): *Antelope bubalis*
Oryx gazella, 'pasan' (I,187)
Forster (1796:160): *Antelope oryx*
Raphicerus campestris, 'steenbock' (I,187)
Forster (1796:160): *Antelope dama*, var. *rupestris*
Raphicerus melanotis, 'grysbok' (I,187)
Forster (1796:160): *Antelope dama*, var. *melanotis*

Sylvicapra grimmia, 'duiker' (I,187)
Forster (1796:160): *Antelope grimmia*
Lepus sp., 'lièvres' (I,187)
Francolinus sp., 'perdrix' (I,187)
Crocuta crocuta, 'hiennes' (I,187)
Canis mesomelas, 'jackal' (I,188)
Forster (1796:161): *Canis aureus*
Panthera pardus, 'léopard et panthère' (I,188); probably the same animal.
Forster (1796:161): *Felis Leopardus* et *Pardus* L.
Lycaon pictus, 'chien sauvage' (I,188)
The *Oiseaux d'Afrique* adds the birds depicted on plates 31, 105, 129, 256 and 257 from the Zwartland.

[45] Twenty-four Rivers. Liewenberg lived about 10 miles south of Porterville *c.* 33°10'S, 19°00'E
Anhinga melanogaster rufa, 'anhinga' (I,190-196, pl.III)
Forster (1796:165): Abart von *Plotus melanogaster* var.δ.
Pasteur (1798:359): *Plotus anhinga*
Gallinago nigripennis, 'bécassines' (I,196)
Equus zebra, 'zèbre' (I,197)
Oryx gazella, 'pazan' (I,197)
Alcelaphus buselaphus, 'bubale' (I,197)
Struthio camelus, 'autruche' (I,197)
Forster (1796:168): *Struthio camelus*
Pasteur (1798:360): *Struthio camelus*
'fourmis blanches', termites (I,197-199),Levaillant referred to Smeathman (1781) as inserted in the French edition of Sparrman (1787,I:397-463).
Naja nivea, 'kooper-kapel' (I,199)

[46] Verloore Vlei, staying at Swartboskraal 32°23'S, 18°43'E
(see also locality [72])
Tadorna cana, 'canard de montagne' (I,223)
Forster (1796:188): *[Anas] cana.*
This locality was mentioned in the *Oiseaux d'Afrique*, pls.112 f.2 and 121 f.1,2.

[47] Heerenlogement 31°58'S, 18°32'E
Procavia capensis, 'dassies' (I,230)
Forster (1796:196): *Cavia capensis*
Pasteur (1798:356): *Hyrax capensis*
This locality was mentioned in the *Oiseaux d'Afrique*, pl.134.

[48] Vleermuysklip 31°44'S, 18°22'E
Chiroptera, 'chauve-souris' (I,243).

[49] Mouth of the Olifants River 31°42'S, 18°11'E
Mycteria ibis, no name (I,246), an ibis with bald red head, yellow bill and legs, about 3 feet high. Probably this species, although legs should be red.
Pasteur (1798:360): *Tantalus ibis ...* nov.spec.
Pelea capreolus, 'rheebock' (I,249)
Raphicerus campestris, 'steenbock' (I,249)
Physeter macrocephalus, 'cachelot' (I,249) found dead on the beach as stated on the map, length 40-50 feet, partially eaten by crows and mongoose.
Pasteur (1798:357): *Physeter macrocephalus*
Mustelidae, 'muys-hond' (I,249)
Forster (1796:207): *Viverra capensis* L.
Pasteur (1798:357): *Viverra* sp.
This locality was mentioned in the *Oiseaux d'Afrique*, pls. 40 and 242.

[50] Oliphantsklip 31°16'S, 18°0'E
Francolinus sp., 'gélinottes' (I,295)

[51] Camp of Klaas Baster (locality uncertain)
Oreotragus oreotragus, 'klipspringer' (II,34-38)
Forster (1796):264) *Antelope Oreotragus* (new plate added)
Pasteur (1798:356): *Antilope oreotragus*
Procavia capensis, 'dassen' (II,38)
Neophron percnopterus, 'corbeau blanc, houri-gourap' (II,40)
Forster (1796:269): *Corvus morio.*
Corvus albicollis, 'corbeau à collier, corbeau' (II,40)
Forster (1796:269): *Corvus cafer*
Loxodonta africana, 'éléphant' (II,41-49). Two specimens were shot, said to belong to a rare variety called 'poeskop' having no tusks. To Levaillant, they were just plays of nature. He considered the elephants of Ceylon to be conspecific with the African animals.
Pasteur (1798:355): *Elephantis maximi* varietas, poeskop.

[52] Swart Doorn River
This locality was mentioned in the *Oiseaux d'Afrique*, pl.216.

[53] Namero 30°28'S, 17°55'E
This locality was mentioned in the *Oiseaux d'Afrique*, pls.91 and 190.

[54] Ellenboogfontein 30°13'S, 17°52'E
Equus zebra, 'zèbre' (II,121)
Equus quagga, 'couagha' (II,121)
Forster (1796:327): Quagga
Pasteur (1798:357): *Equus Quagga.*
Oryx gazella, 'pasan' (II,125)
Loxodonta africana, 'éléphant' (II,125)

[55] Matjesfontein 30°7'S, 17°52'E
Pterocles namaqua, 'gélinottes' (II,155)

[56] Kaussi or Buffels River
Tadorna cana, 'canard de montagne' (II,156)
Pasteur (1798:359): *Anas marila.*
Taurotragus oryx, 'kana' (II,156)
Forster (1796:353): *Antelope oreas* Forst.
Pasteur (1798:356): *Antilope oreas.*
Panthera pardus, 'panthère' (II,157)
Forster (1796:353): *Felis pardus* L.
Pasteur (1798:356): *Felis pardus*

[57] Springbok 29°44'S, 17°56'E
Pronolagus rupestris, 'roode-gat-haas' (II,186). Levaillant's description is brief: shortish ears, generally reddish colour and white belly. *P.rupestris* has the characteristic red colouring of the hindparts.
Pasteur (1798:356): *Lepus ...* nova species.
Proteles cristatus, no name (II,186). Levaillant saw skins on some Hottentot huts, which were greyish blue, with long hairs on the back like the hyena described by Buffon but much smaller; it would live in holes.

[58] Region south of the Orange River
Neophron percnopterus, 'vautour d'un blanc isabelline, ouri-gourap' (II,195)
Forster (1796:380): *Vultur percnopterus*, var.ß
Pasteur (1798:357): *Vultur Percnopterus Aegyptius*

[59] Country of Little Namaquois, N.W.Cape Province
This locality was mentioned in the *Oiseaux d'Afrique*, pls. 64, 91, 124.

[60] Ramans or Company's Drift 26°53'S, 18°21'E
Antidorcas marsupialis, 'springbock' (II,231)
Forster (1796:406): *Antelope Dorcas*, var. *Euchore*
Tragelaphus strepsicerus 'coudou' (II,231)
Equus zebra, 'zèbre' (II,231)
Struthio camelus, 'autruche' (II,231)
Fish, like the carps in the Rhine (II,231)
Fish, black, without scales, 15-18 inches long, like a barbel (II,231)
Hippopotamus amphibius, 'hippopotame' (II,231). An old female was shot, and its teeth were preserved. Later Levaillant killed a mother with its young. The latter's meat tasted well, and the mother's milk was nice, even with coffee (II,258-261).
Panthera leo, 'lion' tracks (II,242, 263)
Lepus sp., 'lièvres' (II,254)
Forster (1796:423): *Lepus capensis*
Pterocles sp., 'gélinotte' (II,254), a new kind
Forster (1796:423): *Tetrao namaqua*
Francolinus capensis, 'perdrix' (II,254)
Forster (1796:423): *Tetrao capensis*
Loxodonta africana, 'éléphant' (II,263)

Panthera pardus, 'tigre' (II,263).

[61] Fontaine du Sécretaire (just north of Orange River)
Giraffa camelopardalis, 'giraffe' (II,271), seen soon after crossing the Orange River at Ramans Drift.
Sagittarius serpentarius, 'secretaris, slang-vreeter' (II,272-282)
Forster (1796:436): *Falco serpentarius*
Pasteur (1798:357): *Falco serpentarius*
Milvus migrans parasitus, 'milan' (II,286).

[62] Rivière des Lions (Gamma River)
Philetairus socius, 'une république d'oiseaux' (II,290), nests
Agapornis roseicollis, 'petits perroquets' (II,290-292), found in the nests of the weaverbirds.
Pasteur (1798:358): *Psittacus* ... nova spec.
Giraffa camelopardalis, 'giraffe' (II,298-300)
Pasteur (1798:356): *Camelopardalis Giraffa*
Levaillant saw a group of 7 specimens, one of which he shot.
Pterocles sp., 'gélinotte' (II,316)
Antidorcas marsupialis, 'springbock' (II,316)
Syncerus caffer, 'buffle' (II,316)
Equus zebra, 'zèbre' (II,316)
Struthio camelus, 'austruche' (II,316)
Giraffa camelopardalis, 'giraffe' (II,317), another 2 small groups
Loxodonta africana, 'éléphant' (II,317)
Diceros bicornis, 'rhinocéros' (II,318), male and female seen in distance.
Merops apiaster, 'grand guêpier' (II,318)
Merops hirundineus, 'petit quêpier, tawa' (II,318)
Felis caracal, 'chat sauvage' (II,319), a skin was bought
Forster (1796,II:6): *Felis Caracal*
Pasteur (1798:356): *Felis* ... nova spec. an *Caracal*

[63] Region north of the Orange River
Phoeniculus purpureus, 'mocqueur' (II,357)
Capitonidae, 'barbus' (II,357)
Forster (1796,II:32): *Bucco* sp.; not *B.capensis* known from South America, possibly Senegalese *Bucco parvus*
Philetairus socius, 'républicain' (II,357)
Agapornis roseicollis, 'perroquet' (II,357)
Connochaetes taurinus, 'gnou' (II,358)
Antidorcas marsupialis, 'springbock' (II,358)
Canis mesomelas, 'jackal' (II,359)
Crocuta crocuta, 'hyène' (II,359 and plate)
Forster (1796,II:34): *Canis crocutta* (sic)
Pasteur (1798:355): *Canis crocuta*
Proteles cristatus, 'aardwolf' (II,359-360)

[64] near Draay River
Francolinus sp., 'pintades' (II,372)
Uraeginthus granatinus, 'grenadin' (II,372)
Pasteur (1798:360): *Fringilla granatina*
Pedetes capensis, 'springhaas' (II,372)
Forster (1796,II:43): *Dipus cafer*
Pasteur (1798:356): *Dipus cafer*
Giraffa camelopardalis, 'giraffe' (II,372-373). A male of 15 feet 1 inch height, was shot by Bernfry. The skin was not preserved due to practical difficulties.
Syncerus caffer, ' buffle' (II,375)
Polemaetus bellicosus, 'griffard' (II,375)
Panthera leo, 'lion' (II,381)
Anthia thoracica, 'scarabée' (II,415-417) identified by Skaife (1973:29).
Caterpillar, a venomous species (II,421-423)

[65] Village of Great Namaquois
Cercopithecus aethiops, 'petit singe' (III,1), a tame monkey, greenish in colour with white belly.
Giraffa camelopardalis, 'giraffe' (III,6)
Diceros bicornis, 'rhinocéros' (III,6)
Antidorcas marsupialis, 'springbock, gazelle de parade' (III,29-31).
Equus sp., 'âne sauvage de couleur isabelle' (III,37)
Pasteur (1798:357): *Equus asinus*, nov. var.
It was a wild ass of yellowish-white colour ('couleur isabelline'). It was too wild to be approached and Levaillant never saw it nearby. It looked as if there were no stripes. If this were all, he could have referred to *Equus burchellii* which may appear stripeless at a distance (Meester 1973:9). However, he stated to have bought a skin which had been used to cover a hut, and surely he would not have missed the stripes?
Equus zebra, 'zèbre' (III,37)
Equus quagga, 'kwagga' (III,38-41)
Levaillant was certain that it constituted a separate species and not a hybrid as suggested by Vosmaer (1783a:10) because the quagga was much smaller and had another cry.
Lybius torquatus, 'variété du barbican' (III,42)
Pasteur (1798:358): *Bucco dubius*
Vidua macroura, 'veuve' (III,42)
Forster (1796,II:110): *Emberiza serena*
Pasteur (1798:360): *Emberiza serena*
Diceros bicornis, 'rhinocéros' (III,43), 2 shot. The biggest specimen was 7 feet 5 inches high, 11 feet 6 inches long excluding the tail and its front horn measured 19 inches 3 lines.

[66] Village of Kabobiquois on the Fish River
Crocuta crocuta, 'hyène' (III,71-73)
Levaillant discussed the strandwolf (*Hyaena brunnea*) which he never saw, and the striped wolf (?*Proteles cristatus*) only found north of the Orange River.
Pasteur (1798:355): *Canis* ... strandwolf; *Canis Hyena*, gestreepte wolf.
Equus sp., (III,98), isabella zebra, not obtained
Connochaetes taurinus, 'gnou' (III,98) said to be a new kind of gnou, apparently larger than the others.
Diceros bicornis, 'rhinocéros' (III,98)
Giraffes were absent (III,98, 118)
Unidentified dove, 'genre du ramier' (III,111). Levaillant just said it was a pigeon.
Cuculus sp., 'coucou' (III,112) killed by Klaas.
Syncerus caffer, 'buffle' (III,117)
Coracias caudata, 'rollier du Sénégal' (III,117)
Pasteur (1798:358): *Coracias senegalensis*
Merops sp., 'guêpier' (III,117)
Pasteur (1798:358): *Merops nubicus*

[67] Village of Houzouana, near Fish River
Struthio camelus, 'autruche' (III,199-206)
Tauraco corythaix, 'touraco' (III,251), a new variety.
Forster (1796,II:254): 'Man wird also nun wohl eine neue Gattung von Vögeln unter dem Namen *Turako* annehmen müssen.'
Phacochoerus aethiopicus, 'sanglier à large groin' (III,251-253, pl.XVI). He illustrated a young specimen from his own collection.
Forster (1796,II:256): *Sus aethiopicus*
Pasteur (1798:357): *Sus aethiopicus*
Panthera leo, 'lion' (III,253). A female was killed measuring 4½ inches high in front, 10 feet 8 inches long from the tip of the nose to the end of the tail.
Pasteur (1798:356): *Felis leo*.

[68] Return to the Orange River
Giraffa camelopardalis, 'giraffes' (III,275), in small groups
Xerus inauris, 'ecureuil' (III,291) a new kind of squirrel called aguimp by the Namaquois
Pasteur (1798:356): *Sciurus*, nov. spec.
Suricata suricatta, 'muyshond' (III,292-293)
Levaillant's description is as follows: 'Tout le pelage de la partie supérieure du corps, sur un fond d'un brun clair mêlé de beaucoup de poils blancs, porte des bandes transversales d'un brun foncé. Le dessous du corps et le dedans des jambes sont d'un blanc roussâtre; la queue, très-charnue et plus longue que les deux tiers de la longueur du corps, est noire à son extrémité; du reste elle est brune, mêlangée de poils blancs.'
Forster (1796,II:282): *Viverra tetradactyla*

Pasteur (1798:356): *Viverra* sp.

Indeterminate bat, 'oreillarde' (III,294). The outer ears were about 6 cm long and wide; on the nose there was another membrane of 3 cm height. The ears and this membrane were 'roux ferrugineux' in colour. The body length was 8 cm, the wingspan 20 cm. The body was covered with fine greyish hairs. This description was the basis of *Vespertilio megalotis* Bechstein (1800:622)

Pasteur (1798:355): *Vespertilio auritus*

Equus sp., 'zèbre du couleur isabelline' (III,295), not killed.

[69] Country of the Great Namaquois

This locality covers the same areas as those indicated by [61-68] above. It is a general indication for the area north of the Orange River. It is used frequently in the *Oiseaux d'Afrique* for the species depicted on plates 14, 15, 29, 39, 54, 64, 69, 90, 91, 97, 106, 107 f.1, 109, 110, 124, 127, 149, 154, 158, 185, 189, 191, 214, 267, 268, 278, 291, 293 f.2, 295 f.1 and 296.

[70] Orange River

Papio ursinus, 'gros singe' (III,311), a specimen was killed by Swanepoel and Klaas Baster at Raman's Drift during Levaillant's absence.

Pasteur (1798:355): *Simia cercopythecus*

Hippopotamus amphibius, 'hippopotame' (III,405)

Torgos tracheliotos, 'oricou' (III,405-409, pl.XVIII). The skin was taken to Paris.

Forster (1796,II:362): *Vultur Tracheliotos*

Pasteur (1798:357): *Vultur* ... nova spec. gier.

Orycteropus afer, 'eerd-verken, goup de Kaminouquois' (III,417-418). Specimen presented by a Hottentot.

Forster (1796,II:368): *Myrmecophaga capensis*

Pasteur (1798:355): *Myrmecophaga capensis*

[71] Groen River — *c.* 30°33'S, 17°58'E

Loxodonta africana, 'éléphans' (III,476), 5 seen, 2 killed.

Pelecanus sp., 'pélican' (III, 476)

Phoenicopterus sp., 'flamans' (III,476)

Levaillant here saw a large number of waterbirds, which he named without further description making identification rather difficult: 'le bihorreau, le héron pourpre et huppé, heron huppé, le héron commun et la cicogne brune' and 'd'oies sauvages' (III,476). They were named by Pasteur (1798:359) as '*Ardea nycticorax, A.purpurea, A.major, A.cinerea, A.nigra* and *Anas anser*' respectively.

[72] Verloore Vlei — *c.* 32°22'S, 18°25'E

Eudyptes chrysocome, 'manchot sauteur' (III,492)

Forster (1796,II:419): *Aptenodytes chrysocome*

Pasteur (1798:359): *Aptenodytes chrysocome*

Spheniscus demersus, 'manchot' (III,492)

Forster (1796,II:419): *Colymbus auritus*

Pasteur (1798:359): *Colymbus cristatus*

Gallinula chloropus, 'poulle sultane' (III,493)

Forster (1796,II:421): *Fulica porphyrio*

Pasteur (1798:359): *Fulica porphyrio*

Unidentified raptor, 'faucon huppé' (III,493). Levaillant gave no description but said that it only ate crabs and fish. Maybe the same species was mentioned in the *Oiseaux d'Afrique*, pl.28 (which is not recognisable).

Forster (1796,II:421): *Falco ossifragus*

Pasteur (1798:358): *Falco* ... an nova spec.

[73] Berg River

Hippopotamus amphibius, 'hippopotames' (III,495), many were seen.

12.15 THE ANIMALS COLLECTED BY LEVAILLANT

When Levaillant returned to Europe at the end of 1784, he carried a large number of zoological specimens: many birds, some mammals and an unknown number of insects. Before returning home to Paris, Levaillant apparently spent some time with his acquaintances in Holland selling part of his collection. This is somewhat surprising. One would have expected him to proceed straight home to greet his family and to sort his zoological specimens. On the other hand, he might have used the long homeward journey to arrange his collections (which comprised many duplicates) with a view of selling or donating some to his Dutch friends. Maybe, this was one of the conditions of the whole undertaking. Witkamp (1869:184) said that Levaillant had made an agreement with Jacob Temminck concerning the spoils of the expedition. However that may be, it has become clear that Levaillant gave or sold many of his birds to Jacob Temminck, Joan Raye, Holthuysen and others, as discussed in this and the following paragraphs.

The collecting of animals was the primary reason for Levaillant's travels, as vividly appears from the books describing his journeys. On numerous occasions, Levaillant stated to have shot or preserved a certain animal. His very first exploits at Saldanha Bay went up in smoke when the ship on which he was staying, was attacked by the English (Levaillant 1790,I:23).[11] Afterwards he was more fortunate. His publications do not allow an accurate appraisal of the specimen collected, but some passages may be mentioned to gain at least an impression.

On the first expedition, Levaillant had several opportunities to send some specimens to Cape Town for safekeeping by his friend W.C.Boers, the ex-fiscal. First he sent 'ma collection en insectes & oiseaux précieux' (Levaillant 1790,I:71). Soon after he could add 'une centaine d'oiseaux avec un coffret d'insectes' (1790,I:77). Two months later, he asked to have transported 'tous les animaux apprêtés depuis mon dernier envoi, ainsi que les Touracos vivans que j'avois pris aux pièges' (1790,I:88). While staying at Koks Kraal, an appraisal of all specimens collected up to that time, both actually in his possession at the time and those sent to the Cape, already passed 700 pieces (1790,I:172). More and more was added, even the number of specimens became a problem: 'Depuis mon départ de Koks-Kraal, j'avois déjà fait, en oiseaux, une collection si considérable que je ne savois plus où la placer; elle étoit certainement plus embarrassante par son volume que par sa pesanteur, quoique j'eusse toujours pris soin, après avoir apprêté chaque individu, de la coucher à plat pour ménager la place' (1790,II:323). Shortly before his return to Cape Town, he reviewed his collections: 'ce n'étoit pas un petit ouvrage; j'avois des oiseaux par-tout' (1790,II:387).

In the account of his second expedition, Levaillant is much less informative. He often tells how he collected a certain species, but a total number cannot be ascertained. At the Orange River, he stated to have left behind his birds, quadrupeds and insects, 'enfin cette collection précieuse et chérie' (Levaillant 1795,II:345).

The last reference shows that Levaillant also collected insects. Their fate is unknown. Only one glimpse was found in the *Entomologie* by Olivier (1789:iii) who visited the cabinet of 'M.le Vaillant' and received some specimens from the Cape as a gift. He described some species like *Scarabaeus philotectes* and *S.antaeus* from specimens in Levaillant's collection, but those came from South America.

If the actual number of animal specimens collected in South Africa remains mysterious, certainly it was considerable. Many animals can now be recorded in the collections of Temminck, Raye and others (below). The rest maybe stayed in his own cabinet. In his *Oiseaux d'Afrique* (1796,I,p.x.) he stated to have 'plus de cinq cents individus nouveaux ou faussement décrits',

but this of course is not necessarily the complete extent of the collection at the time. While writing his bird books, Levaillant often indicated where the birds described were preserved in case of species found outside South Africa. The others are presumed to have been in his own collection. That applies to between 150 and 200 species, some of which must have been represented by two or more specimens.

The fate of the collection is not known. Levaillant wanted to sell it in its entirety to the natural history museum in Paris. At the beginning of 1796, that transaction had not been completed. It caused considerable concern and irritation to Levaillant, even to the extent of complaining about the treatment he was receiving from the authorities in the introduction of the *Oiseaux d'Afrique*. Although it is a rather long passage, it may be enlightening to reproduce it here. Levaillant described what happened between the end of the French Revolution of 1789 and 1796.

'Cependant cette révolution qui, dit-on, remet chaque chose et chacun à sa place, n'étoit pas encore éclose, que le gouvernement, par le seul moyen qui nous convint à tous deux, voulut me dedommager de mes dépenses. Il fut même déjà convenu que mon cabinet seroit déposé au Muséum d'Histoire Naturelle, et qu'il me seroit payé 60 mille livres, outre une pension qui me seroit faite à titre d'indemnité. C'est dans cet instant que naquirent les premiers élans de la liberté; cédant avec transport aux efforts naissans de cette fille chérie de la nature, j'oubliai bientôt mon intérêt particulier pour ne plus songer qu'à l'intérêt général; et je remis à d'autres tems le soin de ma fortune entièrement négligée jusqu'alors. Lors de l'assemble constituante, le gouvernement parut un moment vouloir complir, à mon égard, les mêmes engagements; mais ayant une antipathie insurmontable pour les sollicitations, et n'ayant sur-tout point de ces puissans protecteurs, si nécessaires à ceux qui veulent réussir, je fus bientôt oublié. L'assemblée legislative vint à son tour, et fut sur le point de réparer les retards d'une équitable indemnité; mais l'assemblée legislative s'endormit également dans son justice. Enfin, la convention nationale, plus puissante et plus expéditive, sembla se proposer de réparer les torts qu'on m'avoit fait éprouver jusqu'alors. La plus grande partie des membres du comité d'instruction publique virent mon cabinet; des commissaires furent nommés pour le visiter; la commission temporaire des arts fut elle-même saisie de cette affaire; les citoyens Richard et Lamarck firent un rapporte à ce sujet; enfin, aucun moyen économique d'entrer en possession des seules richesses que je possédasse au monde ne fut négligé. Mais des affaires plus intéressantes sans doute, firent oublier la mienne. Ayant écrit une lettre au comité pour la lui rappeler, on parla de faire l'estimation de mon cabinet. ESTIMER un à un les individus d'une collection! qui m'avoit couté trente ans de travail, dont cinq années de courses dans les déserts brûlans d'Afrique, et pour laquelle je ne demandois pas la vingtième partie de la valeur; puisque, malgré les progrés des tems et la différence des besoins, la somme offerte en 1789 étoit celle que je demandois encore au gouvernement en 1795 ... . Enfin, cette somme, malgré sa modicité, est restée dans les trésors de la nation, et mon cabinet est toujours en mon pouvoir, et va probablement passer à l'étranger ou être dispersé, car ma fortune ne me permet plus de le garder' (Levaillant 1796,I:x-xi).

The evidence about Levaillant's transaction with the Paris Museum is equivocal. There are sources indicating that at least some of his specimens went to the museum, but several other relevant documents are silent which would point at the opposite. Stresemann (1951:91), for instance, implied that Levaillant could neither find a buyer nor interest the museum in the purchase. This certainly was the situation in 1796 when the above quotation from the *Oiseaux d'Afrique* appeared. At that time the Paris museum had only a small collection of birds. In 1793, there were just 463 specimens (Geoffroy-St.Hilaire 1809, cf. Farber 1982:53). The expansion around the turn of the century was considerable. This was due, according to Deleuze (1823:436), 'par l'achat du cabinet de M. Levaillant, par la réunion du cabinet du Stathouder.' On the other hand, the list of accessions between 1793 and 1806 provided by Geoffroy-St.Hilaire (1809) does not include any items to which Levaillant's specimens could be referred. Rudolphi (1804:236) stated that 'im Kabinet des Pariser Museums im Jardin des Plantes ist auch sehr vieles von ihn, die dort befindliche Giraffe hat er geschossen und ausgestopft, so auch viele von den Vögeln.' There is also a manuscript note written by Louis Dufresne about the ornithological collection in Paris stating that 'the Levaillant collection was acquired by the Government in the sixth year of the Republic, 1797-1798, and was catalogued' (Grant 1957:95). The catalogue was not retrieved.

There seems to be at least some truth in that statement about the acquisition by the government. The French government was said not to have paid any money, but just to have given duplicates of books from the public libraries to Levaillant. Bokhorst (1973a:6), however, found that Levaillant gave a quarter share of the value of his collection to his daughter Françoise Julie on the occasion of her marriage in 1794, which was about 8570 francs. This would indicate that the French government paid 34,280 francs to Levaillant, or that the sale of the books supplied that sum. The source of this information, however, is uncertain enough, and the date stated different from that in other sources, to retain at least some doubt about the price paid.

If Levaillant sold some specimens to the museum in Paris, they should have been recorded in the Muséum National d'-Histoire Naturelle, Paris. As in all similar cases with old collections, it is very hard to retrieve the old specimens, because they were incorporated in the general collection, and of course, many of the oldest animals have deteriorated and their history was often lost. In the available literature, there are just a few references to animals collected by Levaillant. Two of these concern animals from Suriname. This is at first confusing and unexpected, but we must realise that Levaillant probably traded specimens from all over the world, while some specimens from Suriname may have been collected by his father. Cuvier & Valenciennes (1837,XII:293) mentioned that the specimens in the Muséum in Paris of a fish (*Chironectes pictus*) came from 'M. Levaillant, qui les avait apportés de Surinam' (cf. Pietsch 1985:63). Hoogmoed (1973:14), in his historical survey of herpetological collectors in Suriname, mentioned the presence of material from Suriname in the Paris museum collected by Levaillant.

One would expect that there would be many birds from Levaillant among the specimens in the Paris museum. There are only a few detailed records. Daudin (1800,II:259) wrote that Levaillant shot a specimen of *Coracias bengalensis* in Africa, which was placed in the museum in Paris. Levaillant (1804,I:121) himself, in the case of 'La Perruche aux ailles chamarrées' said that he once had a specimen, which went to the museum in the Jardin des Plantes. Deleuze (1823:445)

wrote about the 'indicateurs' in the museum: 'nous avons quatre espèces de ce genre: les deux premières ont été apportées par M. Levaillant, les deux autres par M. Delalande.' Some of Levaillant's bird specimens may have been destroyed in the course of time. According to Sclater (1931:649), nothing was preserved. However, Grant (1957:95), without further details, suggested that there still would be 'some 10 to 20 of Levaillant's birds in the mounted collection in the Paris museum and none of these are types.'

There is evidence about only two mammal specimens said to have been brought from South Africa by Levaillant and preserved in the MNHN, Paris. In both cases, however, there are conflicting statements. It was often assumed, for instance by Bryden (1899:418), Renshaw (1921:25) and Berlioz (1959:300) that the mounted skin of the extinct bluebock (*Hippotragus leucophaeus*) still preserved in Paris was secured by Levaillant in 1782. Its history was discussed by Mohr (1967:37-40). The label on the mounted animal reads:

Hippotragus Leucophaeus Pall.
Delegorgue. Afrique Australe.

Because Delegorgue travelled in South Africa in 1838-1844, while the blauwbok became extinct around 1800, this attribution must have been added at a later date. Harris (1840) said that this specimen 'the only spoils of the animal extant', were supposed to have come from the collection of the Stathouder of Holland. I will show in part III that this in fact may be correct and that there is no evidence to ascertain that Levaillant collected this specimen.

The museum in Paris also has a mounted skin of a giraffe (*Giraffa camelopardalis*), which was said to have been brought by Levaillant (Deleuze 1823:428, Geoffroy-St.Hilaire 1827). This may well be true, because it is known that Levaillant preserved the skin of a giraffe shot during his second expedition.

Levaillant probably did not sell all his specimens to the Paris Museum at the end of the 18th century. At the time of his death in 1824, however, the inventory of his estate (see 12.2.7) only listed very few stuffed birds. In the documents connected with the Hocquard sale, there is only mention of 'quelques oiseaux d'Afrique empaillés'. Bokhorst (1973a:6) stated that the Lycée in Sézanne, France, still has two cases marked 'Le Vaillant donation' containing some stuffed birds.

12.16 THE COLLECTION OF TEMMINCK

Levaillant first met Jacob Temminck (1748-1822) in 1780. Temminck had a powerful position as treasurer ('thesaurier') of the Dutch East India Company. Besides, he had a lively interest in natural history, maintaining both a cabinet and an aviary with living birds. The size of his collection at that early date is not known. However, Levaillant was impressed by this 'brilliante collection' containing 'une foule d'objets précieux que je n'avois jamais vus en France. Tout m'y parut extrêmement rare & la conservation la plus pure' (Levaillant 1790,I:1). Temminck was the obvious person to be approached by Levaillant to help him with his plans for travelling abroad considering the similarities in age and interest, as well as Temminck's position. There may have been some agreement concerning the disposition of the specimens collected during the journey (Witkamp 1869:184). Temminck's active interest in the whole enterprise may also appear from Levaillant's dedication of his *Oiseaux d'Afrique* to the Dutchman: 'Mon ami, je vous addresse mon Ornithologie comme une foible témoignage de mon estime et de ma reconnaissance; si votre modesté s'en trouve offensée, vous pardonnerez au motif bien pur qui a dicté mon offre' (Levaillant 1796,I:viii). Possibly, Temminck helped to finance the publication of the *Oiseaux d'Afrique* (Stresemann 1951:92).

Levaillant sent some birds to Jacob Temminck even while he was still travelling in the interior of South Africa. He wrote in the account of his travels (1795,II:80) that some time in 1783 he received a request from Temminck to send him a particular species of hornbill. Levaillant proudly confirmed to have sent it even before through the assistance of the fiscal, W.C. Boers.

About the 'Petite Alouette à tête rousse', of which only one specimen was killed, Levaillant (*Ois.Afr.* IV, pl.199) wrote: 'Elle fait aujourd'hui partie de la riche collection de M. Temminck, à Amsterdam, à qui je l'ai donnée, quoiqu'elle fût unique de la mienne, mais j'avois trop d'obligations à cet ami pour ne pas enrichir son cabinet des objets même unique que je rapportois. Aussi peut-on voir dans ce cabinet la collection la plus complette des oiseaux de mes découvertes, que je lui ai addressée du Cap même avant de revenir en Europe.'

It is not known when exactly Temminck received the birds from Levaillant. As hinted above, W.C.Boers may have taken some when he left the Cape in April 1783. Others may have been donated or sold after Levaillant's return to Holland in 1784, or even later. There is no question, however, about the presence of many of Levaillant's South African specimens in the collection of Jacob Temminck. One witness was George Forster ([1791]1958:314) who visited Temminck's collection: 'ich könnte Dir die Menge und die Schönheit der neuen Gattungen von Vögeln rühmen, womit der edle Sonderling, le Vaillant, diese Sammlung seines ersten Wohlthäters und Beschützers bereichert hat.' The son of the family, Coenraad Jacob Temminck (1778-1858) made a similar remark: 'M. le Vaillant, qui, au retour de son voyages en Afrique, a deposé dans mon cabinet les fruits nombreux de ses intéressantes découvertes' (Temminck 1815,III:640).

Levaillant often mentioned Jacob Temminck as the owner of a certain bird, e.g. in case of 21 species described in the *Oiseaux d'Afrique*. Temminck on his part gave some interesting exotic birds to Levaillant, like the 'Rousseau' (*Ois.Afr.*, pl.66 fig.2), the 'Mésange grise' (pl.139 fig.2), the 'Oranor' (pl.155) and the 'Drongri à ventre blanc' (pl.171)

Coenraad Jacob Temminck became interested in natural history at an early age. Of course, he was greatly stimulated by his father's library and collections.[12] Levaillant was also influential in provoking his interests, even though Coenraad Temminck was still very young at the time of the visit. In 1825, soon after Levaillant's decease, C.J.Temminck (1825, pl.380) wrote: 'Je dois à Le Vaillant et à ses écrits mes premières pensées et mon premier élan en histoire naturelle; ses ouvrages

12. In the sales catalogue of Temminck's library of 1858, there were two manuscript catalogues of his cabinet, both of them not known to exist at present, i.e. '583. Catalogue du Cabinet de Mr C.J.Temminck, beau manuscript de 75 pages, à titre dessiné en couleur, relié en marroq. rouge doré sur plat, dos en tranche. gr. in fol.' and '584. Eigenhandig geschreven catalogus van het Kabinet van den Heer C.J.Temminck, fol.v.'

et ses conseils me servirent de guides dans l'étude pratique de cette science, et je me plais à reconnaître qu'il posa, à son retour d'Afrique, les premières bases d'une collection qui, passant depuis du père à fils, fait aujourd'hui le plus bel ornement du Musée des Pays Bas.'

We may assume that the younger Temminck met Levaillant on several later occasions when visiting Paris. There was also some correspondence, although one can only guess at its volume because the letters in the possession of both men are completely lost. Those written to Temminck were still known to De Beaufort (1920:39) who recorded, by chance, one written by Levaillant in 1812 complaining about Temminck's lack of interest in financial matters (see 12.2.7).[13]

In 1820, C.J.Temminck became the first director of the newly founded natural history museum in Leiden, 's Rijks Museum van Natuurlijke Historie (RMNH). His own collection – partly inherited from his father – became the nucleus of the new museum, as he wrote in January 1820 (quoted by Gijzen 1938:32): 'Het Kabinet van den Ondergetekende bestaat hoofdzakelijk in het vak der Ornithologie, reeds door mijn vader wierd deze collectie aangevangen en door de reizen van de Heer Le Vaillant verrijkt.'[14] In this way, at least some of Levaillant's specimens entered a public institution. Some of the specimens available in 1820 may still be present (12.18).

C.J.Temminck's Catalogue of 1807

In 1807, C.J.Temminck published a catalogue of his natural history collection, a rare booklet entitled:

Catalogue systématique du Cabinet d'Ornithologie, et de la Collection de Quadrumanes de C.J.Temminck. Amsterdam, C.Sepp Jansz., pp. i-x, 1-270, 1-34. 8vo.

The catalogue was divided in three parts. In the *first part* (pp.1-196), all the species of mammals and birds were listed in a systematic order. In each case, some characteristics and the locality of the animal were briefly indicated. In his nomenclature, Temminck carefully followed his predecessors. He used binominal names in case those could be found in earlier works. The other species he indicated only with French names. Among the latter group there were some birds which had earlier been described in vernacular, and some which were completely new (according to Temminck). All specimens were annotated with a number in brackets, from 1 to 1072. In the book, these numbers appear without any apparent order because they do not run consecutively. Apparently, they represent accession numbers given by Temminck first according to the date on which he entered the species in the catalogue. This gave some clues about the chronology of Temminck's acquisitions, as discussed below.

The *second part* of the catalogue (pp.197-270) was entitled 'Caractères physiques des Oiseaux non-décrits.' The previously unknown birds were here described in some more detail. Temminck only provided them with names in French, only in a few instances he added a (new) binominal name. The *third part* (pp.1-34 of second sequence) was a 'Note des Oiseaux doubles et de quelques autres objets d'histoire naturelle offerts en échange.' It is a list of duplicates. The pages of this part are given below as, for instance, 'III:1' or part 3, page 1.

Temminck's *Catalogue systématique* was first studied by Hartlaub (1849). He listed the new species described in the second part and gave their 'modern scientific names'. He found that the catalogue had been used by Vieillot in the description of many birds in the *Nouveau Dictionnaire d'Histoire Naturelle* of 1816-1819 (see 12.4.6). A more recent analysis was made by Stresemann (1953a), who fortunately solved the problem of the chronology of the entries. He clarified that Temminck must have started his work in 1799 with the specimens available at that time. In that year he first listed 333 species, after which he continued up to number 439 for species which arrived in 1799 or which he had overlooked (Stresemann 1953a:321). Clearly, the birds collected by Levaillant in South Africa and still present in 1799 in Temminck's collection should have been included in the species numbered between 1 and 439.

In the following list I have mentioned 94 birds from South Africa with Temminck's accession numbers between 1 and 439. The entries follow the systematic sequence in the first part of Temminck (1807). Each entry starts with the accession number, followed by the name provided by Temminck (either Latin or French) and his note about locality if relevant; the column of the entry summarizing Temminck's data ends with a page number in brackets referring to the descriptions in the first and second part of the *Catalogue*. The last column is the current name of the species.

I assume that many of these 94 South African birds were actually collected by Levaillant. Temminck only stated this in a few cases.

Temminck (1807): South African birds with numbers 1-439

No.	Temminck's Name	Current Name
2.	*Vultur leucophaeus* (p.6)	*Neophron percnopterus*
1.	*Falco albescens* (p.8)	*Stephanoaetus coronatus*
3.	*Falco ecaudatus* (p.8)	*Terathopius ecaudatus*
14.	*Lanius senegalus* (p.14) from Senegal	*Tchagra tchagra*
9.	*Lanius collaris* (p.14)	*Lanius collaris*
16.	La Piegrieche olive, du Pays d'Auteniquoi, mâle et femelle (p.15)	*Telophorus olivaceus*
15.	*Lanius brubru*, mâle et femelle (p.15)	*Nilaus afer brubru*
17.	*Lanius aethiopicus*, 'mihi', mâle et femelle (p.15)	*Laniarius ferrugineus*
19.	*Lanius cubla*, mâle et femelle (p.16)	*Dryoscopus cubla*
315.	*Strix nusuella*, Grands Namaquois (p.18)	*Bubo ? africanus*
98.	Le Calao Couronné d'Afrique, pays des Caffres, femelle (p.38)	*Tockus alboterminatus*
7.	*Corvus dauricus* (p.39)	*Corvus albus*
6.	*Corvus albicollis* (p.40)	*Corvus albicollis*
345.	*Corvus hottentottus*, mâle (p.40)	*Corvus capensis*
141.	Le loriot à masque noir d'Afrique, mâle et femelle (p.46, 203) 'Mr. Le Vaillant donnera dans son	*Oriolus larvatus*

13. De Beaufort (1920:35) mentioned to have received a large box 'een grooten kist' with manuscripts and letters by C.J.Temminck. This material has since been considered lost. After reading the typescript of this book, Dr G.F.Mees revealed that these papers were incorporated in the archives of the Rijksmuseum van Natuurlijke Historie, Leiden.

14. Translated: 'The Cabinet of undersigned mainly consists of ornithological material. The collection was already started by my father and it was enriched by the travels of Mr Le Vaillant'.

No.	Temminck's Name	Current Name
	Ornithologie d'Afrique une description de cette espèce' (Temminck 1807:203).	
29.	Le Couroucou Narina, ou Couroucou à ventre rose d'Afrique, mâle et femelle (p.55, 206-207)	*Apaloderma narina*
152.	Le Troupial à masque noir d'Afrique, pays des Namaquois, mâle et femelle (p.49, 201)	*Ploceus velatus*
92.	*Bucco dubius*, le barbican, mâle (p.56)	*Tricholaema torquatus*
89.	Le petit barbu, ou le barbicon d'Afrique, pays des Caffres (p.56)	*Pogoniulus pusillus*
88.	*Bucco niger* (p.56,III:14)	*Lybius leucomelas*
91.	*Cuculus indicator* (p.57)	*Indicator indicator*
26.	Le coucou gris ou vulgaire du Cap, dans le Camdebo (p.58)	*Cuculus gularis*
425.	*Cuculus auratus* (p.59,III:15)	*Chrysococcyx caprius*
25.	*Cuculus clamosus* (p.59)	*Cuculus clamosus*
23.	*Cuculus edolio*, mâle et femelle (p.60)	*Clamator jacobinus*
79.	*Picus capensis*, mâle et femelle (p.63)	*Mesopicos griseocephalus*
78.	Petit pic à baguettes d'or d'Afrique, Rivière Duivenhoek (p.65, 212,III:15)	*Dendropicos fuscescens*
81.	*Picus olivaceus* (p.65)	*Geocolaptes olivaceus*
105.	Petit guêpier à queue hirondelle, ou le Tawa d'Afrique (p.72,III:17)	*Merops hirundineus*
210.	Martin chasseur d'Afrique, pays des Caffres (p.70,214,III:17)	*Halcyon albiventris*
110.	*Upupa promerops* (p.73)	*Upupa epops*
99.	*Upupa erythrorhynchos*, mâle et femelle (p.73)	*Phoeniculus purpureus*
100.	Le Promerops Namaquoi d'Afrique, pays des Grands Namaquois (p.74,217) 'Découvert par Levaillant' (Temminck 1807:217).	*Phoeniculus cyanomelas*
116.	*Certhia chalybea*, pays Auteniquoi (p.75)	*Nectarinia chalybea*
111.	*Certhia famosa*, mâle et femelle, du Cap (p.75)	*Nectarinia famosa*
112.	*Certhia violacea*, mâle et femelle, d'Afrique (p.76)	*Nectarinia violacea*
115.	Le Souï-manga à bec droit, ou le mignon d'Afrique, pays des Caffres, mâle et femelle (p.76,218)	Not identified
130.	Le Souïmanga à flancs souci, ou Souïmanga Namaquois, Pays des Grands Namaquois (p.77,219,III:19) 'M. Le Vaillant a trouvé ce souimange ... dans les Pays des Namaquois' (Temminck 1807:219)	*Nectarinia fusca*
156.	*Sturnus capensis* (p.85)	*Sturnus vulgaris*
144.	*Sturnus nabirop* (p.85)	*Lamprotornis nitens*
147.	*Sturnus morio* (p.86,III:22)	*Onychognathus morio*
145.	*Sturnus nabouroup*, mâle (p.87,III:21)	*Onychognathus nabouroup*
136.	*Turdus capensis* (p.88)	*Pycnonotus capensis*
132.	Le merle orangé , reclameur, mâle (p.88)	*Cossypha dichroa*
137.	Le merle espion d'Afrique (p.89)	*Monticola explorator*
68.	Le merle fluteur du Cap, mâle (p.89)	*Sphenoeacus afer*
160.	*Colius erythropus = leuconotus*, Cap (p.97)	Not identified
183.	*Colius striatus* (p.97)	*Colius striatus*
162.	Le Coliou jou-nue d'Afrique, Pays des Caffres (p.97,227)	*Urocolius indicus*
275.	*Loxia orix* (p.98)	*Euplectes orix*
276.	*Loxia capensis* (p.98)	*Euplectes capensis*
286.	Le verdier à ventre jaune d'Afrique, Cap de Bonne Espérance (p.101,230)	*Ploceus bicolor*
331.	Le petit bouvreuil gris du Cap (p.102,230)	Not identified
313.	Le Republican Namaquois d'Afrique (p.102,233)	*Philetairus socius*
271.	*Emberiza longicauda*, mâle (p.104)	*Euplectes progne*
308.	*Emberiza capensis* (p.105)	*Emberiza capensis*
292.	Le Capi à croupion rouge, Pays des Caffres (p.113, 237,III:26)	*Estrilda erythronotos*
43.	L'Echenilleur gris (p.114)	*Coracina caesia*
45.	L'Echenilleur jaune rayé (p.114)	*Campephaga flava*
38.	Gobemouche mignard (p.115)	*Stenostira scita*
37.	*Muscicapa cristata* (p.115)	*Terpsiphone viridis*
36.	Gobemouche mantelée (p.116)	*Trochocercus cyanomelas*
268.	Le petite alouette à tête rousse (p.120)	*Calandrella cinerea*
267.	*Alauda capensis* (p.121)	*Macronyx capensis*
71.	La lavandière pie, ou l'Aguimp, Pays des Namaquois (p.121)	*Motacilla aguimp*
62.	La fauvette à longue queue ou Citrin du Cap de Bonne Espérance (p.125)	*Prinia flavicans*
57.	*Sylvia maura* (p.122)	*Saxicola torquata*
61.	La fauvette à cul roux ou Grignet d'Afrique (p.125)	*Parisoma subcaeruleum*
56.	Le traquet noir, le Montagnard, pays des Grands Namaquois (p.127)	*Oenanthe monticola*
53.	*Sylvia hottentotta*, mâle (p.127,III:28)	*Oenanthe pileata*
54.	Le traquet fourmillier (p.128)	*Myrmecocichla formicivora*
167.	La mésange à gorge noir ou le Griset d'Afrique, Cap du Bonne Espérance (p.133)	*Parus cinerascens*
326.	*Columba capensis* (p.141)	*Oena capensis*
325.	La tourterelle à ventre blanc d'Afrique, pays d'Auteniquoi (p.144,249)	*Turtur tympanistria*
319.	La tourterelle pourprée d'Afrique, Pays d'Auteniquoi (p.144,254)	*Aplopelia larvata*
262.	*Tetrao namaqua*, mâle et femelle, le ganga à cinturon blanc, Pays des Namaquois (p.154)	*Pterocles namaqua*
265.	*Perdix tuturnix*, du Cap (p.160)	? *Coturnix coturnix*
263.	*Tetrao bicinctus* mâle et femelle, la gélinotte à double collier ou le biband d'Afrique (p.154)	*Pterocles bicinctus*
258.	*Perdix nudicollis* mâle et femelle, le francolin gorge nue d'Afrique (p.157,III:31)	*Francolinus afer*
224.	*Otis afra*, la cannepetière à oreilles blanches d'Afrique (p.161)	*Eupodotis afra*
225.	*Otis coerulescens*, Pays des Caffres (p.162)	*Eupodotis caerulescens*

No.	Temminck's Name	Current Name
200.	*Scopus umbretta* mâle, d'Afrique (p.164)	*Scopus umbretta*
186.	*Ardea pavonina*, mâle et femelle, l'oiseau royal d'Afrique (p.164)	*Balearica regulorum*
196.	*Tantalus calvus*, mâle, d'Afrique (p.169)	*Geronticus calvus*
191.	L'Ibis gris à ailes cuivrées d'Afrique, Pays d'Auteniquois (p.169 and p.257 as Courlis gris) – 'decouvert par Mr.F.Levaillant' (Temminck 1807:257)	*Bostrychia hagedash*
227.	*Charadrius coronatus* (p.173)	*Vanellus coronatus*
226.	*Charadrius leucogaster*, Pays d'Auteniquoi (p.173)	Not identified.
230.	Le petit pluvier à poitrine rousse d'Afrique, Pays des Namaquois (p.173,262) – 'decouvert par M.Levaillant' (p.262)	*Charadrius pecuarius*
229.	Le petit pluvier à double collier d'Afrique Pays d'Auteniquois (p.173,263) – 'découvert par M.Levaillant' (p.263). Hartlaub (1849) incorrectly gave the locality as 'Pays des Namaquois' with reference to p.263.	*Charadrius tricollaris*
228.	*Cursorius africanus*, mâle, mihi, le coure-vite à double collier d'Afrique Pays des Namaquois – non décrit, espèce nouvelle (p.175,263) A species here first named by Temminck: 'Mr. Le Vaillant a trouvé cette rare espèce de coure-vite dans le Pays des Grands Namaquois' (Temminck 1807:263).	*Rhinoptilus africanus*
246.	Le Râle d'eau à gorge blanche d'Afrique, Cap de Bonne Espérance (p.177,264)	*Rallus caerulescens*
248.	La Marouette piqueté d'Afrique, Pays d'Auteniquoi, mâle et femelle (p.179,266)	*Sarothrura rufa*
250.	Le castagneux à cou roux du Cap, pays d'Auteniquoi (p.180, 267)	*Tachybaptus ruficollis*
220.	*Plotus Levaillantii* mihi, mâle et femelle, l'Anhinga à cou isabelle d'Afrique, Pays d'Auteniquoi (p.196, 268) The new name was proposed with reference to the engraving published in Levaillant (1795,I:95).	*Anhinga melanogaster rufa*

Among the accession numbers above 439 in Temminck's *Catalogue* of 1807, there are 16 additional bird species from South Africa. They are mentioned below in the same manner as the species above, because the localities stated might indicate that they too were collected by Levaillant.

No.	Temminck's name	Current name
581.	*Falco parasiticus*, d'Afrique (p.9)	*Milvus migrans parasitus*
583.	*Falco melanopterus* (p.9,III:5)	*Elanus caeruleus*
591.	*Lanius zeylonus*, mâle (p.16,III:21)	*Telophorus zeylonus*
720.	*Strix scops*, Cap de Bonne Espérance (p.19)	*Otus senegalensis*
449.	*Coracias senegalensis*, d'Afrique (p.44,III:11)	*Coracias caudata*
459.	*Gracula carunculata* (p.50)	*Creatophora cinerea*
1050.	Le petit coucou éclatant ou le coucou de Klaas (p.60)	*Chrysococcyx klaas*
1054.	Le pic à moustaches noires d'Afrique Pays des Caffres (p.65,213)	*Thripias namaquus*
903.	*Turdus olivaceus* (p.91,III:22)	*Turdus olivaceus*
641.	Le gros-bec col coupé d'Afrique, Pays des Caffres (p.99, 228)	*Amadina fasciata*
515.	Le gobe-mouche pririt (p.118)	*Batis pririt*
802.	Le gobe-mouche molenaar d'Afrique, Pays d'Auteniquoi, femelle (p.119)	*Batis capensis*
1040.	Le grivetin, rivière Gamtos (p.129)	*Erythropygia leucophrys*
608.	*Caprimulgus asiaticus*, l'engoulevent à collier d'Afrique (p.137)	*Caprimulgus pectoralis*
620.	*Columba guinea* (p.140)	*Columba guinea*
526.	Le pigeon ramier écaille, ou le rameron d'Afrique, Pays d'Auteniquoi (p.141,249).	*Columba arquatrix*

12.17 THE COLLECTION OF JOAN RAYE

Some details about the life and extensive library of Joan Raye van Breukelerwaert (1737-1823) were given in 12.7. His collection of natural history specimens too was very valuable. A special relationship between Raye and Levaillant is undeniable. The presence of some unique copies of the bird books in Raye's library and some 40 documents relating to transactions between the two men all point in that direction. Moreover, Levaillant often mentioned the existence of a certain bird discussed in his bird books in Raye's collection. It is to be expected, therefore, to find a number of South African birds collected by Levaillant in the collection of the Dutchman. This is witnessed by Rudolphi (1804:109), who visited Raye in 1802: 'er hat vorzüglich viele von Le Vaillant erhalten'.

After Raye's decease, C.J.Temminck estimated the value of the total collection at Hfl. 52,000 on 25 August 1823 (Gijzen 1938:161). This figure agrees with the inventory made by notary Karsseboom, as published by Van Benthem Jutting (1964:178-179). There were conchological specimens valued at Hfl. 14,750 and insects worth Hfl. 16,900 besides the following items (translated from Van Benthem Jutting):

Various bird specimens under glass covers in the alcove Hfl.300,-
A collection of quadrupeds, birds and amphibians, in eleven separate cases with glass windows and several smaller cases placed on top of the above Hfl.8,420.-
A collection of mounted birds in eight separate cases with glass windows, besides several birds under glass covers Hfl.10,800.-

The collection was auctioned in Raye's home in Amsterdam on 3 July 1827 and the following days. A sales catalogue was prepared, but the compiler was not named. There are several copies available of this book of 222 pages. One of them in the RMNH, Leiden, was annotated with the names of the buyers

and the prices paid, but only as far as the insects and other invertebrates were concerned (Gijzen 1938:161). The mammals and birds lack these annotations. The South African birds found in the sales catalogue are further discussed below. The total number of specimens in each class was as follows:

Mammalia	1-73	Lepidoptera	1-518
Aves	1-1103	Mollusca & Testatacea	1-353
Crocodilus	1	Univalvia	1-902
Insecta	1-437	Lapides	1-860

At Raye's sale in July 1827, part of the collection was acquired by C.J.Temminck on behalf of the new national museum of natural history in Leiden (RMNH) as stated in Temminck's annual report of 31 December 1827 (translated from Gijzen 1938:161): 'The Museum has made an important acquisition in the collection sold in July at Amsterdam belonging to the late lord Raye van Breukelerwaert. Almost all the important items and all those absent from the Museum have been bought and from the amount of Hfl. 10,000 given by His Majesty for that purpose, only a little over Hfl. 7000 was spent.'

This shows that it is clearly inaccurate, as Grant (1957:95) said, that Temminck bought all zoological specimens. It is not quite clear, however, exactly which species he bought and which he left. Only in the case of '*Falcinellus cursorius*', Temminck (1830, pl.510) mentioned that Levaillant had deposited a specimen in Raye's collection, 'individu qui notre Musée a acquis à la vente de cette collection.' Some comments of the shells included in the sale were given by Van Benthem Jutting (1939:209, 1964:179).

Raye's Sales Catalogue (1827)

This is not an easy book to use. It contains a short introduction followed by a list of species according to their classes. The specimens were numbered, sometimes there are two or three for one species. The species are identified by a Latin and by a French name, in two columns. Some of them are described rather than named in Latin, because no earlier name was known to the anonymous compiler. The species were arranged systematically per genus.

I assume that at least most South African birds in the collection of Raye were bought by Levaillant. It is not possible to identify these species only from the short entries in the catalogue (they do not include localities or references to literature). The only way to select the South African species in the catalogue is either by recognising the scientific name used or to look for similarities in the French names compared to the publications and documents relating to Levaillant. These comparisions have led to three lists of species possibly from South Africa:

1. Birds found in Levaillant's *Oiseaux d'Afrique*;
2. Birds found in another of Levaillant's bird books;
3. Birds found on an unpublished drawing and absent from the books.

In the *Oiseaux d'Afrique*, Levaillant stated in 15 cases that a certain bird was represented in Raye's collection, but most of those concern species absent from South Africa. The RMNH copy of the *Oiseaux d'Afrique* (12.10) has 53 additional drawings supposedly illustrating specimens in the possession of Raye, but again many of these were birds unknown from the south of Africa. In the list below I have enumerated 40 South African species found both in Raye (1827) and in the *Oiseaux d'Afrique*. Each entry gives in the first column the specimen number, Latin and French names from Raye (1827) and in the second column the current name with the addition in brackets of the plate number of that species in the *Oiseaux d'Afrique*.

Comparison of Raye (1827) and Levaillant's *Oiseaux d'Afrique*.

No.	Raye's Name	Present identification (*Oiseaux d'Afrique*, plate no.)
1.	*Vultur fulvus*, le vautour fauve	*Gyps coprotheres* (10)
10.	*Falco vulturinus*, le caffre	*Aquila verreauxii* (6)
11.	*Falco haliaetus*, le balbusard	*Haliaeetus vocifer* (4)
16.	*Falco melanopterus*, le blac	*Elanus caeruleus* (36)
18.	*Falco jackal*, le rou-noir	*Buteo rufofuscus* (16)
23.	*Falco serpentarius*, le messager ou secretaire	*Sagittarius serpentarius* (25)
40, 41.	*Lanius collurio*, l'écorcheur, mâle et femelle	*Lanius collurio* (64)
42.	*Lanius collaris*, la piegrièsche du Cap de Bonne Espérance	*Lanius collaris* (61)
43, 44.	*Lanius aethiopicus*, la piegrièche boubou, mâle et femelle	*Laniarius ferrugineus* (68)
47.	*Lanius capensis*, le brubru	*Nilaus afer brubru* (71)
53, 54.	*Lanius olivaceus*, la piegrièche oliva, mâle et femelle	*Telophorus olivaceus* (75)
166.	*Edolius musicus*, le drongo drongeart	*Dicrurus adsimilis* (167)
169.	*Turdus saxatilis*, le merle de roche	*Monticola rupestris* (101)
185.	*Turdus atricapillus*, le merle à tête noire, du Cap de Bonne Espérance	*Lioptilus nigricapillus* (108)
186, 187.	*Turdus zeilonicus*, le merle à collier	*Telophorus zeylonus* (67)
200.	*Turdus olivaceus*, la grive griveron, jeune âge	*Turdus olivaceus*
204.	*Turdus phoenicurus*, le merle Jean Frederic	*Cossypha caffra* (111)
205.	*Turdus bicolor*, le merle spréo	*Spreo bicolor* (88)
217, 218.	*Turdus morio*, le merle du Cap	*Onychognathus morio* (83)
238.	*Oriolus auratus*, le loriot loriodor	*Oriolus auratus* (260)
239.	*Turdus rex*, le roi des fourmiliers	*Myrmecocichla formicivora* (186)
247.	*Gracula carunculata*, le porte-lambeau	*Creatophora cinerea* (93)
277.	*Motacilla capensis*, le hoche-queue du Cap de Bonne Espérance	*Motacilla capensis* (177)
310.	*Alauda apiata*, l'alouette batteleuse	*Mirafra apiata* (194)
311.	*Alauda africana*, le sirli	*Certhilauda curvirostris* (192)
321.	*Parus niger*, la mésange noire d'Afrique	*Parus niger*
410, 411.	*Colius capensis*, coliou du Cap de Bonne Espérance, mâle et femelle	*Colius colius* (257)
412.	*Buphaga africana*, le picque boeuf du Sénégal	*Buphagus africanus* (97)
510, 511.	*Certhia famosa*, mâle, le grand souïmanga ou grimpereau verd à longues pennes du Cap de Bonne Espérance	*Nectarinia famosa* (289)
514.	Certhia nigra, capite viridi, gula purpurea, le grimpereau ou sucrier noir à gorge pourprée du Cap de Bonne Espérance	*Nectarinia amethystina* (294)
701, 702.	*Picus capensis*, mâle et femelle, le pic à tête grise du Cap de Bonne Espérance	*Mesopicos griseocephalus* (248)

No.	Raye's Name	Present identification (*Oiseaux d'Afrique*, plate no.)
710.	*Picus mystaceus*, le pic à double moustaches	*Thripias namaquus* (251)
715.	*Picus olivaceus*, le pic laboureur	*Geocolaptes olivaceus* (254)
721.	*Cuculus canorus*, le coucou	*Cuculus gularis* (200)
726, 727.	*Cuculus serratus*, le coucou edolio, mâle et femelle	*Clamator jacobinus* (207)
737.	*Cuculus clamosus*, le coucou criard, femelle	*Cuculus clamosus* (205)
747.	*Indicator major*, le grand indicateur	*Indicator indicator* (241)
748.	*Indicator minor*, le petit indicateur	*Indicator minor* (242)
778.	*Trogon narina*, le couroucou narina, jeune âge	*Apaloderma narina* (228)
939, 940.	*Columba capensis*, la tourterelle à cravatte noire, mâle et femelle	*Oena capensis* (273)

South African birds found both in Raye (1827) and in Levaillant's *Promerops* (1807-18):

485.	*Upupa capensis*, la huppe du Cap de Bonne Espérance	*Upupa epops* (Promerops, part 1, pl.22)
486.	*Promerops cyanomelas*, promerops namaquois	*Phoeniculus cyanomelas* (Promerops, part 1, pl.5)
873, 874.	*Corythaix (Cuculus) persa*, le touraco du Cap de Bonne Espérance, mâle et femelle	*Tauraco corythaix* (Promerops, part 3, pl.16).

South African birds found both in Raye (1827) and on one of the drawings in the UBL collection. The species listed above among those present in the *Oiseaux d'Afrique* are not repeated here. This adds 34 South African species possibly originating from Levaillant.

330.	*Emberiza capensis*, l'Ortolan à ventre jaune	*Emberiza flaviventris* (UBL 76)
346.	*Fringilla capensis*, le grenadin de la côte d'Afrique	*Uraeginthus granatinus* (UBL 199)
371-374.	*Vidua (Emberiza) longicauda*, le veuve à épaulettes	*Euplectes progne* (UBL 232, 233)
466, 467.	*Coracias caudatus*, le rollier à long brins d'Afrique, mâle et femelle	*Coracias caudata* (UBL 226)
593, 594.	*Merops apiaster*, le guêpier	*Merops apiaster* (UBL 128)
600-602.	*Merops hirundinaceus*, le guêpier à queue hirondelle	*Merops hirundineus* (UBL 190)
698.	*Picus pileatus*, le pic noir à huppe rouge, mâle	*Dendropicos fuscescens* (UBL 106)
750.	*Pogonias major*, le barbican à collier noir	*Lybius torquatus* (UBL 209)
763.	*Bucco parens*, le petit barbu	*Pogoniulus pusillus* (UBL 53)
769.	*Bucco grandis*, le grand barbu, femelle ?	*Tricholaema leucomelas* (UBL 53)
856.	*Psittacus passerinus*, la petite perruche du Cap de Bonne Espérance	*Agapornis roseicollis* (UBL 178)
898.	*Numida meleagris*, la peintade	*Numida meleagris* (UBL 197)
900.	*Numida cristata*, la peintade à crête	*Guttera pucherani* (UBL 198)
901, 902.	*Tetrao bonasia*, la gélinotte, mâle et femelle	*Pterocles namaqua* (UBL 158)
908, 909.	*Tetrao namaqua*, le namaqua, mâle et femelle	*Pterocles namaqua* (UBL 10)
914.	*Perdix capensis*, la perdrix du Cap de Bonne Espérance	*Francolinus capensis* (UBL 18)
925.	*Tetrao coturnix*, la caille commune	*Coturnix coturnix* (UBL 8)
975.	*Otis tarda*, la grande outarde	*Neotis denhami* (UBL 93)
976.	*Otis bengalensis*, la cannepetière	*Eupodotis caerulescens* (UBL 118)
992-994.	*Ardea garzetta*, la petite aigrette	*Egretta garzetta* (UBL 32)
996.	*Ardea alba*, le héron blanc	*Egretta alba* (UBL 33)
1014.	*Scopus umbretta*, l'ombrette	*Scopus umbretta* (UBL 22)
1053, 1054.	*Fulica chloropus*, la poule d'eau commune	*Gallinula chloropus* (UBL 241)
1061-1063.	*Phoenicopterus ruber*, le flamant	*Phoenicopterus ruber* (CT 112)
1071.	*Aptenodytes capensis*, le manchot du Cap de Bonne Espérance	*Spheniscus demersus* (UBL 3)
1072, 1073.	*Procellaria capensis*, le damier du Cap de Bonne Espérance	? *Fulmarus glacialoides* (UBL 1)
1076.	*Sterna hirundo*, l'hirondelle de mer	*Sterna hirundo* (UBL 2)
1083.	*Pelecanus carbo*, le cormoran	*Phalacrocorax carbo* (UBL 143)
1084.	*Pelecanus africanus*, le petit cormoran	*Phalacrocorax capensis* (UBL 144)
1085.	*Pelecanus bassanus*, le fou de basan	*Morus capensis* (UBL 133)
1086.	*Pelecanus sula*, le fou	*Morus capensis* (UBL 132)
1088.	*Plotus melanogaster*, l'anhinga à ventre noir	*Anhinga melanogaster* (UBL 141).

12.18 THE COLLECTION OF L.F.HOLTHUYSEN

Meise & Stresemann (1950) and Stresemann (1951:379) suggested that some birds collected by Levaillant were bought by L.F.Holthuysen or Holthuizen (d.1818). This wealthy Dutchman had a collection of birds and other animals in his house on the Heerengracht in Amsterdam. Levaillant certainly was acquainted with Holthuysen and visited him: 'à Amsterdam, on voit encore le cabinet très-nombreux d'oiseaux, du citoyen Holthuyzen, qui possède aussi une grande et belle suite de papillons et d'insectes' (Levaillant 1796,I:56). Levaillant mentioned him again in another short note of appreciation in his *Oiseaux d'Afrique* (II:17) and as the owner of a few birds (*Ois.Afr.* pls.26, 60, 224 and *Perroquets* pls.130, 136).

In October 1793 a collection of zoological specimens was sold by Einbeck in Hamburg. A '*Catalogus rerum naturalium rarissimarum*' was prepared by Anton August Heinrich Lichtenstein (1753-1816). This tract became very rare (copies in Kiel and London), but it was reprinted in 1882 by the Willughby Society. The owner of the collection is not identified in the catalogue, although he is described as a 'Liebhaber, als Mitglied der Batavischen und verschiedener anderen Naturforschenden Gesellschaften.' Roberts (1935a:96) thought that it concerned the sale of part of Levaillant's collection. It was found by Sherborn (1899), Gladstone (1933) and Meise & Stresemann (1950) that the collection belonged to L.F.Holthuysen.

The animals in the catalogue are usually identified by a scientific name followed by a parallel description in both Latin and German (although not always quite identical). There are 60 species stated to occur in South Africa. Some of these could

have been collected by Levaillant, although his name is not actually mentioned. In one case, some specimens were attributed to 'ein berühmter reisender Naturforscher aus dem Caffernlande' (p.6, nos.64-65) which is assumed to refer to Levaillant. He is not the only candidate, however, so one should be careful to draw conclusions. It is not known who bought the animals at the 1793 sale, because the known copies of the sales catalogue are without annotations.

Below I shall list the South African species which can be identified in the sales catalogue (Lichtenstein 1793). There are no references to Levaillant's work. In each case the information is given in two sections. The first section of the entry which ends with the page number in the catalogue in brackets, lists the information given by Lichtenstein, i.e. number, scientific name, and some remarks about the description translated into English. The name provided by Lichtenstein is sometimes preceded by ! or even !!, which probably was meant to indicate that those specimens were particularly rare or interesting. The second section of each entry starts with the current name of the bird if it was identified, followed by my remarks if any were necessary.

Mammalia

16. '! *Sciurus Namaquensis* nobis' (p.2): *Xerus inauris*. The locality is only stated as 'Africa' but the specific epithet points at Namaqualand. This is a new name here proposed by Lichtenstein, and used by Thomas & Hinton (1923:489) as *Geosciurus capensis namaquensis*, and by Allen (1939:293) as *G.inauris namaquensis*.

Aves

20. '*Vultur percnopterus*, var.γ *Capensis*,' Cape of Good Hope (p.2): *Neophron percnopterus*.
21. '*Falco serpentarius*,' Cape (p.3): *Sagittarius serpentarius*.
22. '*Falco leucocephalus*, var.γ *capensis*' – or a new species. An eagle with a white head and a white brown-speckled breast, from the Cape (p.3): Not identified.
24. '*Falco aegyptius*, var.β *capensis*', South Africa (p.3): *Milvus migrans*.
26. '! *Falco undulatus*, nobis.' A buzzard from the Cape, black on the back, underneath whitish grey with black waves; cere, eyering and feet yellow. The total length is over 2 feet, the tail is 10 inches long (p.3): According to Meise & Stresemann (1950:23), the description might refer to *Melierax canorus*, but it is insufficient. The name *F.undulatus* should be regarded as indeterminate.
30. '*Lanius collaris*', Cape (p.4): *Lanius collaris*.
40. '*Lanius ferrugineus*', Cape (p.4): *Laniarius ferrugineus*.
41. '*Lanius naevius*', Cape (p.4): *Lanius naevius*,not known from South Africa (see *Ois.Afr*. pl.77 f.1).
45. '*Lanius scolopaceus* nobis.' An unknown shrike from South Africa, greyish brown with black stripes (p.4): The description doesn't resemble any of the South African shrikes. Meise & Stresemann (1950:24) suggest its identification as an immature, in first winter dress, of *Lanius collurio*.
47. '*Lanius passerinus* nobis', Cape of Good Hope (p.4): *Sphenoeacus afer* (cf. Meise & Stresemann 1950:25).
64, 65. '*Psittacus cafer* nobis' (p.6): *Poicephalus robustus*. This is the bird which was said to have been brought by a naturalist from the Cafferland (see above). Levaillant (*Perroquets*, pl.130) distributed specimens to Temminck, Raye, Holthuysen and Boers.
74, 75.'*Psittacus pullarius*', South Africa, male and female (p.7): *Agapornis roseicollis*.The denotion 'capensis' in the Latin description was used in a geographical sense only, not as part of the name (Meise & Stresemann 1950:24)
90. '! *Buceros melanoleucos* nobis.' A new black and white hornbill from Cafferland. It has a red beak 4¾ inch long, the casque on top of the beak being the same colour, 3¾ inches long. The tail feathers are shining black with white on the edges. The two middle tail feathers are totally black, the others have a white tip. Feet and nails black, total length 2 feet 2 inches. The length of the tail is 1 foot (p.8-9): Most authorities like Roberts (1935a) and Meise & Stresemann (1950:25) regard this name as indeterminate.
93. '! *Corvus cafer* nobis', Cafferland (p.9): *Corvus albicollis*.
99.'*Corvus afer*' or '*maxicani* var.' or new species. Southern Africa. The tail is forked, colour dark blueish, length 13 inches (p.10): If a true crow, only *Corvus capensis* is possible, but that bird is larger and lacks the forked tail. Probably *Dicrurus adsimilis* is meant, as accepted by Grant & Mackworth-Praed (1942b:61).
129, 130. '*Oriolus capensis*', male and female, Cape (p.12): *Oriolus oriolus*.
153,154. '*Cuculus ater*', Cape (p.14): *Clamator jacobinus*.
155. '*Cuculus cafer*, nobis'. A hitherto unknown cuckoo from the Cafferland, with wedge shaped tail. Head, neck and back are shining black, breast and belly brown barred. The feathers of the wings and tail are black, with whitish spots, the bill and nails are black, the legs dirty grey. The total length is 13 inches (p.14): The bird described is obviously *Cuculus clamosus* Latham, 1801. Meise & Stresemann (1950:24) suggested that a change of name was unavoidable. Since then, the name *C.cafer* has been suppressed by the ICZN.
158. '*Cuculus indicator*' (p.14): *Indicator indicator*.
161, 162. '*Cuculus auratus*', Cape (p.15): *Chrysococcyx caprius*.
163. '? *Cuculus sulphuratus* nobis', or '*Lanius flavescens*?' A hitherto unknown cuckoo or young shrike from the Cafferland (p.15): The description is that of *Campephaga flava*. Meise & Stresemann (1950:24) noted that the name of this species should be changed to *C.sulphuratus*, unless the name *flava* would be 'ranked among the nomina conservanda by some internationa body.' *Cuculus sulphuratus* has since been suppressed by the ICZN.
175. '*Picus capensis*', female, Cape (p.16): *Mesopicos griseocephalus*.
176. '*Picus capensis*', male (p.16): As no.175.
179, 180. '*Picus Namaquus* nobis'. A pair of totally new golden woodpeckers from the interior of southern Africa beyond Namaqualand. The species is barred black with white; the forehead is black with white spots. There is a black spot on both sides of the head behind the eyes, and from the lower mandible a dark black stripe extends towards the breast. The neck is dark black. The quills of the wing- and tailfeathers are golden yellow. Bill length 9-10 inches. The male is distinguished from the female by a stronger bill and a red nape, which is black in the female (p.17): This is the first description of *Thripias namaquus*.
192. '*Todus paradiseus*', Cape (p.19): *Terpsiphone viridis*.
203, 204. '*Alcedo maxima*', Africa, male and female (p.20): *Ceryle maxima*.
208. '*Alcedo rudis*', Cape of Good Hope (p.20): *Ceryle rudis*.
213. '*Merops hirundineus*, nobis.' A new bee-eater with forked tail and blue throat; very similar to the Philippine species, possibly its male hitherto unknown (p.20): *Merops hirundineus*, from South Africa.
215. '*Upupa epops*, var.β *africana*,' Africa (p.21): *Upupa epops*.
216. '*Upupa promerops*' (p.21-22): *Promerops cafer*.
219, 220. '! *Upupa viridis*'. A pair of new green hoepoes from the Cafferland. The body is greenish gold, wings and tail steelblue with white spots, the middle tailfeathers are longer and unspotted. Abdomen and breast black, bill, feet and nails black. The total length is 1 foot 5 inches, length of bill 2½ inches, tail 7½ inches (p.22): *Phoeniculus purpureus*.
229. '*Certhia chalybea*', Cape (p.23): *Nectarinia chalybea*.
234. '*Certhia famosa*', Cape (p.23): *Nectarina famosa*.
263. '! *Aptenodytes demersus*', Cape (p.26): *Spheniscus demersus*.
266. '*Procellaria capensis*', Cape (p.26): *Daption capense*.
283. '!! *Ardea paradisea* nobis', Cape of Good Hope (p.28-29): The first description of *Anthropoides paradisea*.
284. '!! *Ardea chrysopelargus* nobis', brown golden storks from the Cafferland (p.29-30): *Ciconia nigra*.
297. '!! *Tantalus cafrensis* nobis'. A totally new species of ibis or snake-eater from the Cafferland (p.31-32): *Bostrychia hagedash*.
308. '! *Charadrius coronatus*', Cape (p.33): *Vanellus coronatus*.

318. '*Parra africana* ?', a swamp bird from Africa (p.34-35): *Rallus caerulescens* ?
327. '*Otis arabs*', korhaan from the Cape of Good Hope (p.36): ? *Eupodotis afra*.
328, 329. '*Otis cafra* nobis', a pair of hitherto quite unknown korhaans from the Cafferland (p.36): The first description of *Eupodotis cafra*, discussed by Meise & Stresemann (1950:23).
344. '*Tetrao zeylonensis*', interior of South Africa (p.38): *Francolinus* sp.
345. '*Tetrao bicalcaratus*', an African quail like the species from Senegal with two spurs, length 16½ inches (p.38): Not identified.
365, 366. '*Alauda capensis*', Cape (p.40): *Macronyx capensis*.
373. '*Turdus olivaceus*', Cape (p.41): *Turdus olivaceus*.
377, 378. '*Turdus morio*', Cape (p.41): *Onychognathus morio*.
389. '*Colius erythropus*', Cape (p.42): *Colius colius*.
391. '*Colius coromandeliensis* nobis', a hitherto unknown mousebird from the East Indies (p.42): *Urocolius indicus* not stated as collected at the Cape of Good Hope.
409. '*Loxia canadensis*', Africa (p.43): *Ploceus* sp.
410. '*Loxia capensis*', Cape (p.43): *Euplectes capensis*.
411. '*Loxia capensis* var.γ', Cape (p.43): Not identified.
413. '*Loxia orix*', Cape (p.44): *Euplectes orix*.
415. '*Loxia fusca*', Africa (p.44): Not identified.
420. '*Emberiza capensis*', Cape (p.44): *Emberiza capensis*
421, 422. '*Emberiza paradisea*', Africa (p.45): *Vidua macroura*.
425, 426. '*Emberiza longicauda*', Cape (p.45): *Euplectes progne*.
496. '*Caprimulgus europaeus*', Cape (p.52): *Caprimulgus pectoralis*.

12.19 LEVAILLANT BIRDS IN THE LEIDEN MUSEUM

As has been shown above in 12.16 and 12.17, many animals owned by C.J.Temminck and Joan Raye became part of the Rijksmuseum van Natuurlijke Historie (RMNH) in Leiden, Holland. These must have included at least some birds collected by Levaillant in South Africa, especially those from Temminck's private collection. Several have been recorded as such in the catalogues of the bird collection published in the course of the 19th century, as detailed below. In the course of the present examination, I made a short survey in the Leiden museum. A few specimens were identified, most of them obviously old, mounted birds. Sometimes these were labelled with an indication that they were collected by Levaillant. It appeared, however, that these references were added late in the 19th century and they may not be authoritative. Besides the birds mentioned below as present in the RMNH, a few others illustrated in the *Oiseaux d'Afrique* are available. Those are a number of manufactured species kept separate from the main bird collection, because they are non-existant in nature.

The early catalogue of the RMNH was printed in installments known by the name of 'Muséum d'Histoire Naturelle des Pays-Bas' prepared by H.Schlegel and collaborators.[15] I found the following entries with reference to the travels of Levaillant. The numbers in the quotations refer to the number of the specimen.

'*Buceros melanoleucus*. 1. Adulte, Afrique australe, voyage de Le Vaillant' (*Tockus alboterminatus*)

'*Spizaëtus coronatus*. 2. Mâle au premier plumage, individu tué et figuré par Le Vaillant' (*Stephanoaetus coronatus*).

'*Neophron percnopterus*. 1. Adulte, Afrique australe, voyage de Le Vaillant' (*Neophron percnopterus*). The mounted specimen labelled as above was seen in 1983.

'*Vultur fulvus Kolbei*. 2. Individu dans la livrée à peu près parfaite, Afrique australe, voyage de Levaillant' (*Gyps coprotheres*). The specimen was seen in 1983.

'*Vultur bengalensis*. 1. Adulte, individu figuré par Le Vaillant. Hindoustan' (*Gyps bengalensis*). Not found in South Africa but depicted in the *Oiseaux d'Afrique*, pl.11.

'*Vultur auricularis*. 6. Tête montée, à plis du cou très grande; Afrique australe, voyage de Le Vaillant' (*Torgos tracheliotos*).

'*Megalaima pusilla*. 2. Adulte, pays des Namaquois, individu tué et rapporté par Le Vaillant' (*Pogoniulus pusillus*).

'*Plotus Le Vaillantii*. 3. Mâle, à-peu-près au plumage parfait, Afrique australe, voyage de Le Vaillant. 5. Femelle de plumage imparfait, Afrique australe, voyage de Le Vaillant' (*Anhinga melanogaster rufa*).

'*Indicator major*. 1. Adulte, Afrique australe, voyage de Levaillant' (*Indicator indicator*).

'*Cuculus clamosus*. 1. Mâle adulte, Afrique australe, voyage de Levaillant' (*Cuculus clamosus*).

'*Otis coerulescens*. 1. Mâle adulte, voyage de Levaillant' (*Eupodotis caerulescens*). Specimen seen in 1983.

'*Otis afra*. 1,2. Mâle et femelle adultes, Afrique australe, voyage de Levaillant' (*Eupodotis afra*). Both specimens seen in 1983.

'*Vanellus coronatus*. 1. Adulte, Afrique australe, voyage de Levaillant' (*Vanellus coronatus*).

'*Vanellus spixii*. 1. Adulte, Afrique australe, voyage de Levaillant' (Not identified).

'*Corvus cafer*. 1. Adulte, voyage de Levaillant, du Cabinet de Temminck' (*Corvus albicollis*).

'*Corvus scapulatus*. 1. Adulte, voyage de Le Vaillant, du cabinet de Temminck' (*Corvus albus*).

'*Corvus capensis*. 1. Adulte, Cap, voyage de Levaillant' (*Corvus capensis*).

'*Stictoenas arquatrix*. 1. Adulte, Cap, Cabinet de Temminck' (*Columba arquatrix*).

12.20 THE COLLECTION OF LOUIS DUFRESNE

Louis Dufresne (1752-1832) was born in Champien, depart. De La Somme (Northern France) on 18 January 1752. He took part in the voyage of exploration of La Pérouse in 1785 and 1786, returning home early which saved him from being lost and shipwrecked in the Pacific (Sweet 1970:34-37). In June 1793 he was appointed as *Aide-Naturaliste* in the zoology department of the Muséum National d'Histoire Naturelle, Paris, where he remained until his death on 11 October 1832. From an early age, Dufresne was interested in natural history and in collecting specimens.[16] An obituary notice written soon after his death said: 'il commença ... dès sa plus tendre jeunesse, ces collections qu'il accrut pendant cinquante ans au prix de ses veilles, de toutes ses économies' (Anon. 1833:358).

Dufresne was a good friend of Levaillant. According to the obituary, he left behind 'en manuscrit une notice biographique sur le célèbre voyageur Levaillant, son ami intime, la publication de cet écrit feroit également honneur à l'un et à l'autre' (Anon. 1833:359). Unfortunately, this manuscript appears to be lost. Levaillant too expressed himself in equally clear terms

15. The inventory of the birds in the RMNH, Leiden appeared as 'Revue méthodique et critique de la collection des oiseaux' in the first two volumes of the *Muséum d'Histoire Naturelle des Pays-Bas* between 1862 and 1867. The various installments treating different groups of birds were paginated separately. H.Schlegel wrote most of them, one ('Buccones' 1863) was written by A.Goffin. Many parts mentioned a few birds from Levaillant.

16. Dufresne wrote only few papers (see bibliography, Dufresne 1797, 1802, 1803). The first was a description of *Presbvtis entellus* (Dufresne, 1797) still recognised.

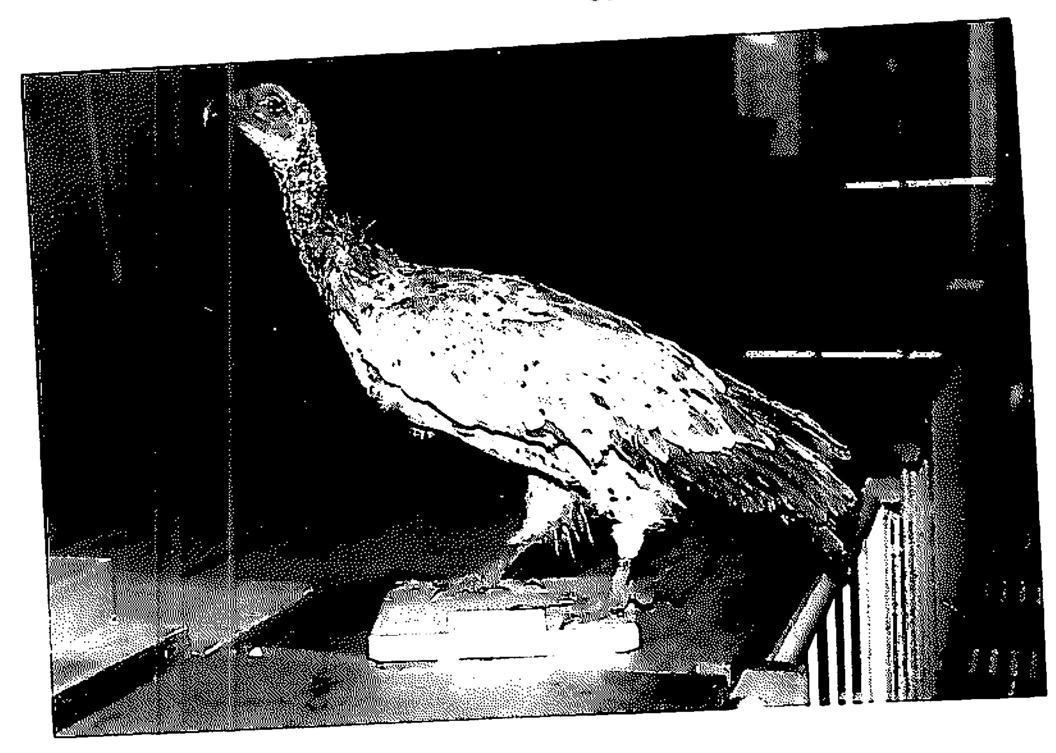


Fig. 129 Mounted specimen of the Cape vulture *(Gyps coprotheres)* collected by Levaillant, in the Rijksmuseum van Natuurlijke Historie, Leiden.

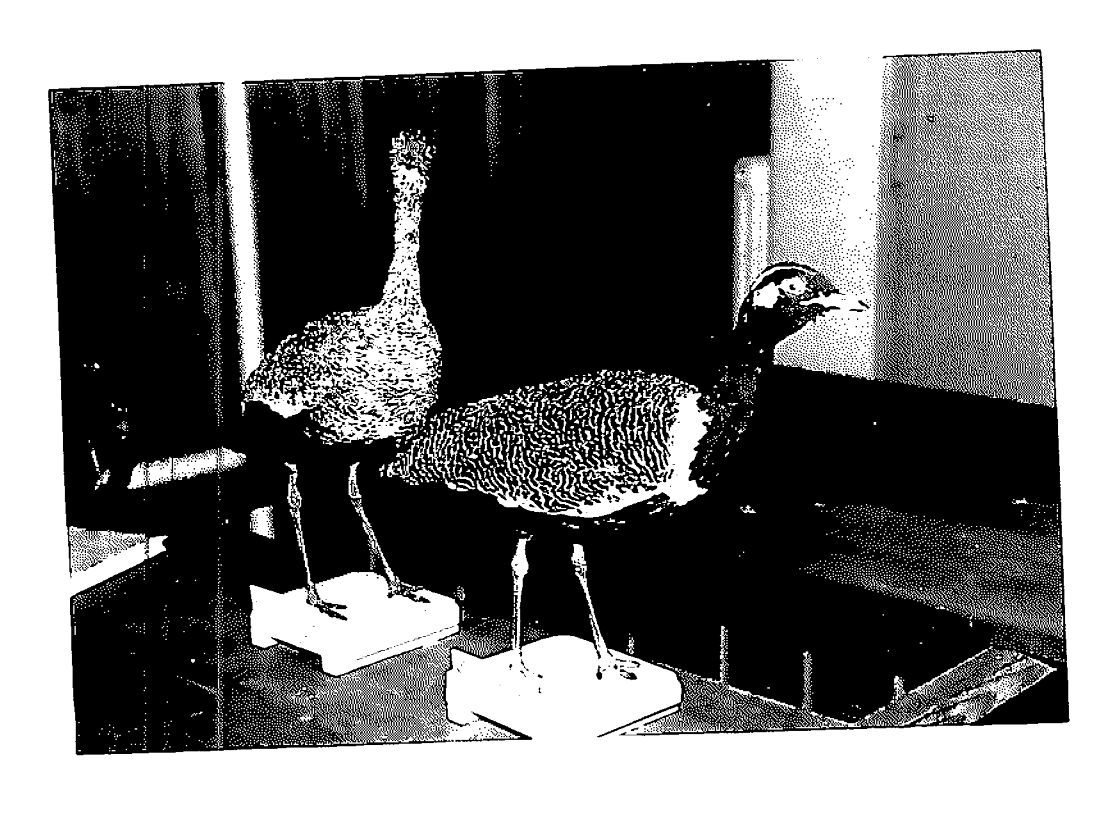


Fig. 130 Mounted specimens of the black korhaan *(Eupodotis afra)* collected by Levaillant, in the Rijksmuseum van Natuurlijke Historie, Leiden.

when naming the Dufresne parrot: 'le nom de M.Dufresne, comme un témoignage de l'amitié qui nous lie et de ma reconnaissance pour la manière obligeante avec laquelle il a la bonté de me laisser la plus grande liberté de disposer de tous les oiseaux de son cabinet, soit que je veuille les faire peindre ou les comparer à d'autres individus de même espèce. Cette complaisance rare, et que M.Dufresne a également pour tous ceux qui s'occupent de la science de l'histoire naturelle, lui a valu, indépendamment de son mérit personnel, une bienveillance générale et l'estime particulière de ceux qui le connoissent' (Levaillant 1805,II:34). As far as recorded, Dufresne gave only one bird to Levaillant (*Ois.Afr.* pl.46), but several other birds were described by Levaillant from Dufresne's collection.

Considering this friendliness, it must be investigated if Levaillant gave or sold some of his South African specimens to Dufresne. There is no evidence to that extent. It is only known with certainty that Dufresne still acquired some animals and books after Levaillant's death in 1824 as discussed by Bokhorst

(1973b:86-88). When Levaillant's heirs made an inventory of the estate in February 1825, they decided to send a large number of items to 'Mr.Dufrêne, naturaliste' as the most convenient place to sell them. Clearly, Dufresne (then aged 73) was to act as dealer and he was not the one buying the items. The material was auctioned by court order by the government auctioneer Hocquard on 21 December 1825. Dufresne bought 31 out of 66 lots. Bokhorst (1973b:90) assumed that Dufresne bought on behalf of the Paris museum of natural history, because he spent 'a sum amounting to more than a year's salary.' Bokhorst's enquiries at the museum produced no further clues.

It cannot be said, however, that Dufresne could not afford to buy for his own collection. He had sold his private cabinet to the University of Edinburgh in 1819. The history of that transaction has been admirably detailed by Sweet (1970). She analysed the correspondence between Dufresne and Robert Jameson (1774-1854), professor of natural history at the University of Edinburgh, as well as the official records. The entire collection of Dufresne was purchased by the University of Edinburgh in 1819 for 56,000 francs, to which was added some 4000 francs for chests and drawers, books and the transport. The total paid was 60,870 francs and 30 centimes, or about £2,647 at the time (Sweet 1970:54-55). According to the registration of the specimens after receipt in Edinburgh, the collection comprised 1640 birds, 800 eggs, 12000 insects, 4000 shells and some fossils and corals (Sweet 1970:67). Captain Brown, one of the negotiators, had mentioned in a letter to Jameson in April 1819 that Dufresne offered 11 rare books of natural history including a unique copy of Levaillant's *Oiseaux Nouveaux* containing eleven original drawings depicting the heads of different birds, lifesize (Sweet 1970:51). These books were bought privately by Dr William MacDonald of Balleshare (1798-1875), later professor of civil and natural history at the University of St.Andrews (Sweet 1970:57). The special copy of Levaillant's work cannot now be found in the University Library of St.Andrews.[17]

Dufresne assured the buyers of his collection that he would not think of starting a new one (Sweet 1970:48). However, the temptation was too great, because apart from the Levaillant specimens bought in 1825, it is said by Chenu (1844:7) that Baron Jules Paul Benjamin Delessert of Lyon (1773-1847) acquired 8200 shells from Dufresne after the latter's death.

The collection sold by Dufresne to the University of Edinburgh in 1819 is still present in the Royal Scottish Museum of that city. Some of the specimens have been discarded, others are difficult to identify, but at least some are preserved (Sweet 1970:68-70, Grimshaw 1900, Stenhouse 1930). Considering the friendship between Dufresne and Levaillant, I was curious to discover if any of the latter's South African specimens might be in Edinburgh, even though no mention of them was made during the transaction. There are two catalogues of the specimens received in Edinburgh, both preserved in the ornithological section of the museum (Sweet 1970:50,67). The earlier one of 1815 is in the handwriting of Dufresne and consists of two parts bound in one volume, entitled:

Catalogue des collections d'objets d'histoire nat.lle formant le cabinet de Mr L.s Dufresne, naturaliste au Jardin du Roi. Paris, 1815. (Volume I treating reptiles and birds has [2] + 24 + [25-96] pages).

The second manuscript catalogue, possibly in the handwriting of A.Royer, administrator in the Paris museum, is dated 1818. It is bound in two volumes entitled:

Catalogue des collections d'histoire naturelle formant le cabinet de M.r L.Dufresne, chef du Laboratoire de Zoologie & Naturaliste au Jardin du Roi. Paris, MDCCCXVIII.

The first volume has a title-page with verso a short index followed by 96 numbered pages, of which many are blank to allow later additions. It lists the birds only. The second volume has a title-page and 308 pages, listing reptiles (pp.1-6), shells (pp.7-165), 'insectes coleoptères' (pp.167-246), 'lepidoptères' (pp.247-285) and 'hemiptères' (pp.285-308).

For the present purpose, I have examined the ornithological part of the 1818 manuscript because its entries are rather more informative than those of the 1815 catalogue. The birds are only summarily described or identified. Most entries state a scientific name, a French name, a locality and, when applicable, a reference to another published source. Levaillant is often referred to, in most cases with 'Lev.t' as the only indication. It could be supposed that this was meant to mean Levaillant as the collector rather than a reference to one of his books. This, however, appears not to be the case. Many birds with this indication are absent from South Africa, but are described in one of Levaillant's books. The catalogue was also used in Edinburgh. In most cases the museum's accession number is added, sometimes with a note in English whether the specimen was kept or destroyed.

Below I have enumerated the species stated to be either from the Cape of Good Hope or from Africa in general. The first part of each entry reproduces the text in the catalogue. If part of the quotation is in English, it concerns additions made by a curator in Edinburgh. This is followed by the page number in the manuscript (in brackets) and then my identifications or notes. In the quotations there are some references to books by authors like Audebert, Buffon and Vieillot in a very brief form; these have not been further traced.

The list of 47 African birds includes 43 species possibly collected in South Africa. It would be quite nice if we could be certain that they were brought home by Levaillant. Of course, that might have been the case. It must be stressed, however, that there is not the slightest evidence to substantiate this proceeding. Let it suffice for the moment to accept the possibility that some of Levaillant's South African birds may still exist in the Royal Scottish Museum in Edinburgh.

'Aelanus caesius Savigny. Le Blagre. Lev. Afrique, rare; 1829.186.76' (p.3): This species described by Levaillant (*Ois.Afr.* pl.5) was said to be found in the South African interior, but the bird depicted on the plate is the Asian *Haliaeetus leucogaster*.

'*Lanius collaris* Lath. le fiscal. Lev.pl.477 [?], de Cap de Bn Esp.ce; destroyed July 1892' (p.4): *Lanius collaris* described in *Ois.Afr.* pl.61,62.

'*Lanius brubru*, le brubru, Lev.t Afrique; 1819-20.1.26' (p.5): *Nilaus afer brubru* (*Ois.Afr.* pl.71).

'*Turdus zeylonicus*, la piegrièche backbakiri. Lev.t Afrique' (p.5): *Telophorus zeylonus* (*Ois.Afr.* pl.67).

'*Dicrurus macrocercus*, le drongolon. Lev.pl.174, Afrique' (p.6): The species was described in the *Ois.Afr.* pl.174 where no locality is given; the locality 'Africa' must have been assumed by the writer of the catalogue.

'*Certhia*, Le souïmange à ceinture bleue. Aud.pl.10. Afrique, rare;

17. According to G.D.Hargreaves, Sublibrarian, University of St.Andrews, letter of 17 October 1985. It could neither be traced in the Royal Scottish Museum, Edinburgh, where I looked for it.

destroyed Aug.1892' (p.9): The species was not described by Levaillant. Indeterminate.

'*Certhia*. Le Souïmange de Madagascar, jeune âge. Le sucrier figuier, Lev.t t.6,' [pl.] 293 le jeune âge' (p.9): Levaillant (*Ois.Afr.* pl.293 f.2) stated to have seen the bird in Namaqualand, but it is not known from there.

'*Certhia famosa*, le grand souïmange à longue queue. Aud.pl.37. Cap. de B.n Esp.ce; destroyed Dec. 1916' (p.10): *Nectarinia famosa* (*Ois.Afr.* pl.289).

'*Falcinellus cyanomelas* V.t Le promerops namaquois Mâle. Lev.t H.N.des Guêpiers, pag.65' (p.11): *Phoeniculus cyanomelas* described by Levaillant (*Promerops* (1) pl.5). The book in which Vieillot described the species is dated 1819 showing that not all entries in this catalogue may have been written in 1818. It may be considered unlikely that anyone besides Levaillant could have collected this specimen in Namaqualand.

'*Upupa promerops* Gm. Le promérops. Aud. pl.4. Cap de B.Esp.ce; 1819-20.1.23' (p.11): *Upupa epops* described by Levaillant (Promerops, pl.22).

'*Oriolus larvatus*, le loriot coudougnan, mâle et femelle. Lev.p.262, afrique; 1819-20.1.32' (p.12): *Oriolus larvatus* (*Ois.Afr.* pl.261,262).

'*Alcedo chlorocephala*, le martin pêcheur à tête verte du Cap de B.E., Buffon, pl.enl.783; 1929.186.100' (p.29): Not identified, not described by Levaillant.

'*Alcedo maxima*, le martin pêcheur huppé du Cap de b.esp. Buffon, pl.enl.679' (p.30): *Ceryle maxima*, not described by Levaillant.

'*Oriolus*, l'echenilleur jaune. Lev.p.164, Afrique' (p.12): *Campephaga flava* (*Ois.Afr.* pl.164).

'*Cuculus auratus*, le coucou Didric, mâle et femelle. Lev.t Cap de Bn Esp.ce; destroyed Aug.1892' (p.26): *Chrysococcyx caprius* (*Ois.Afr.* pl.210,211).

'*Bucco niger*, le barbu du Cap de Bonne Espérance, rare; 1929.186.82' (p.27): *Tricholaema leucomelas* (*Ois.Paradis*, II, pl.29). This is a syntype of *Pogonius stephensii* from the Cape of Good Hope described by Leach (1815, tab.CXVI) from two specimens, in 'Mus.Hist.Nat.Gel. et Dom.Dufresne.'

'*Aptenodyta demersa*, le manchot du Cap, femelle & mâle; destroyed Nov.1892' (p.35): *Spheniscus demersus*.

'*Scolopax capensis*, la bécassine du Cap de B.Esp.ce; destroyed Aug.1892' (p.43): *Gallinago nigripennis*

'*Ralus* le râle du Cap de B.Esp.ce Lev. très rare, esp.nlle' (p.46); Indeterminate.

'*Ralus caerulescens* Gm. Râle bleuâtre du Cap de Bn Esp.ce; destroyed Aug.1892' (p.46): *Rallus caerulescens*.

'*Tetrao namaqua*, la gélinotte des Namaquas' (p.53): *Pterocles namaqua*.

'*Perdix nudicollis*, la gorge nüe, ou perdrix d'Afrique. Buffon, p.e.180' (p.54): *Francolinus afer*.

'*Loxia orix*, la loxie orix, V[aillant], du Cap de B.Esp.ce; destroyed July 1892' (p.57): *Philetairus socius*.

'*Colius erythropus*, le coliou à pieds rouges, Cap de Bn esp. rare; destroyed Oct.1894' (p.58): *Colius colius* (*Ois.Afr.* pl.257).

'*Colius striatus*, le coliou rayé, du Cap de Bn Esp.ce, rare; destroyed Oct.1894' (p.58): *Colius striatus*, (*Ois.Afr.* pl.256).

'*Fringilla granatina*, le grenadin. Buffon, p.e.109. Mâle & femelle, Afrique' (p.59): *Uraeginthus granatinus*.

'*Fringilla arcuata*, le moineau du Cap de Bn Esp. & jeune âge; destroyed July 1892' (p.59): Not identified.

'*Fringilla*. Le républicain. Lev.t d'Afrique; destroyed July 1892' (p.60): *Ploceus velatus*.

'*Emberiza mexicana*, le bruant du Cap de b.n Esp.ce; destroyed 1928' (p.62): *Emberiza flaviventris*.

'*Emberiza longicauda*, la veuve à épaulettes, mâle & femelle. Cap de bn esp.ce; destroyed Aug.1892' (p.62): *Euplectes progne*.

'*Hirundo capensis* (= *cucullata*). L'hirondelle au capuchon roux, Cap de B.E. Buffon, p.e.723; destr.1930' (p.63): *Hirundo cucullata* (*Ois.Afr.* pl.245 f.1).

'*Hirundo senegalensis*, l'hirondelle rousseline, mâle. Lev. pl.245 fig.1; 1921.1.53' (p.63): The French name was that used by Levaillant on the plate in the *Ois.Afr.* mentioned. It appears to be the same species as the last entry.

'*Muscicapa leucocephalus*, le gobemouche à capuchon blanc. Lev.pl.159 du Pays des houzouanas; 1819-20.1.66 Tyrannidae' (p.71): The bird depicted by Levaillant (*Ois.Afr.* pl.159) is South American, although its locality is said to be the country of the Houzouanas. The place in the catalogue may have been taken from Levaillant's published description.

'*Muscicapa paradisi* Gm. Le gobemouche tchitrec-bi roux. Lev.pl.144. Afrique' (p.72): *Terpsiphone paradisi*, stated by Levaillant (*Ois.Afr.*pl.144) to be from Ceylon.

'*Muscicapa*. Le gobemouche tchitrec-bi blanc, Lev.pl.145. Afrique' (p.72): Same as preceding entry.

'*Muscicapa mutata*, le gobemouche schet roux. Lev.pl.147. Afrique; destroyed July 1892' (p.72): Described by Levaillant (*Ois.Afr.* pl.147) from South Africa, but known only from Madagascar.

'*Muscicapa stellata*, le gobemouche étoilé, mâle, 2d plumage, Lev.pl.157; kept' (p.72): *Pogonocichla stellata* (*Ois.Afr.* pl.157).

'*Motacilla rubicola*, le traquet pâtre, mâle. Lev.pl.180. Afrique [idem] jeune âge; destroyed 1928 and July 1892' (p.74): *Saxicola torquata* (*Ois.Afr.* pl.180).

'*Motacilla pileata* Lath. Le traquet imitateur. Lev.pl.181. Afrique; kept' (p.74): *Oenanthe pileata* (*Ois.Afr.* pl.181).

'*Motacilla capensis*, la bergeronnette du Cap de Bn Esp.ce; destroyed July 1892' (p.74): *Motacilla capensis* (*Ois.Afr.*pl.177).

'*Alauda capensis*, la calandre du Cap de Bonne Espérance; destroyed July 1892' (p.74): *Macronyx capensis* (*Ois.Afr.*pl.195).

'*Alauda africana*, l'alouette sirli. Lev.afr.192. Cap de B.E.' (p.77): *Certhilauda curvirostris* (*Ois.Afr.*pl.192).

'*Sturnus nitens* Daud. Le couïgnop. Lev.pl.enl.90. Afrique' (p.78): *Lamprotornis nitens* (*Ois.Afr.* pl.90).

'*Sturnus auratus* Daud. Le nabirop. Lev. Afrique' (p.78): *Lamprotornis nitens* (*Ois.Afr.* pl.89).

'*Sturnus aeneus* Daud. Le vert doré. Lev.pl.87. Afrique' (p.78): *Lamprotornis aeneus* (*Ois.Afr.* pl.87), not known from South Africa.

'*Columba afra*, la colombe émeraudine, mâle. Tck [= Temminck], p.38. Afriq.mérid. rare' (p.79): *Turtur chalcospilos* (*Ois.Afr.* pl.271).

'*Columba capensis*, la colombe tourtelette, mâle. Tck.pl.53. Afrique, rare' (p.80): *Oena capensis* (*Ois.Afr.* pl.273).

12.21 THE COLLECTION OF LAFRESNAYE

There is no reason to expect the presence of birds collected by Levaillant in the collection of Noël-Fréderic-Armand-André, Baron de la Fresnaye (1783-1861). This rich gentleman started to be seriously interested in ornithology in 1825. He bought specimens from many travellers. In the 1830's, South African species could easily be obtained from Pierre Jules Verreaux (1807-1873) or from one of his brothers (Gunn & Codd 1981:361, van Bree et al. 1978:324). Lafresnaye's birds were supposed to be auctioned in 1865, but all of them were bought by Dr H.Bryant to be presented to the Boston Society of natural history. Since that time, they have been presented to the Museum of Comparative Zoology, Harvard University, Cambridge, U.S.A. (Penard 1945).

MacDonald (1957:136) wrote about a specimen from this collection of *Eremomela icteropygialis* Lafresnaye, 1839 (MCZ no.83,386, old no.3742). The locality given on the old label is 'd'Orange' while 'des elephants' was crossed out (Bangs 1930:341, Lafresnaye 1839:258, Dr R.A.Paynter jr. in litt. 11 Oct 1985). According to MacDonald, this specimen was 'probably collected by Levaillant and it might easily have been taken from within the known range of the species north of the Orange River.' There is no reason to agree with this. Winterbot-

tom (1962:119) too doubted any involvement of Levaillant while fixing the type locality of *Eremomela icteropygialis* as the Orange River.

12.22 THE COLLECTION OF ABRAHAM GEVERS

Abraham Paulusz. Gevers (1712-1780), burgomaster of Rotterdam (Holland) had a collection of natural history specimens (Smit 1986:94). Levaillant (1796,I:56) visited him and acknowledged that the number of specimens 'n'est pas nombreux, mais ce sont des pièces choisies et des plus rares.' He made a sketch of a bird later described in the *Oiseaux de Paradis* (II,pl.28). The collection included many shells (Dance 1986:57). It was auctioned in 1787 and the sales catalogue was compiled by F.C.Meuschen (Stresemann 1951:379). This book runs to 659 pages with the text in Latin and French facing each other. Usually only the names of the animals are mentioned. It is not possible to locate the South African species, and in any case the name of Levaillant is not mentioned. Only one South African bird may be discussed here, as it still bears the name proposed in this catalogue by Meuschen (1787:40, no.17): '*Rallus cinereus*, palearibus cristaque fuscis, Linn.0, Naturforscher XI.tab.2.' There were two other specimens of the same species, nos.18 and 19 with the name *Rallus cinereus* only. This is the first description of *Creatophora cinerea* (Meuschen, 1787). 'Linn.0' means that it was not found in the *Systema Naturae* by Linnaeus, while the reference to the journal the *Naturforscher* indicated a paper by Walch (1777). In that paper, it is said that 'Herr Abraham Gevers, ältester Rath der Regierung und Burgemeister zu Rotterdam, ist der Besitzer eines der prächtigsten und vollständigsten Naturaliencabinette in Holland.' Gevers had allowed that some of his birds were drawn, by Muys, pupil of Aert Schouman. One of these birds was described by Walch (1777:9-10) 'Der Capsche Strandlaufer, Tringa carunculata Capensis' and depicted on the coloured plate II. The name he provided is not binominal.

12.23 THE COLLECTION OF BOERS

Levaillant (1796,I:56) went to see the cabinet of 'Boers' in Hazerswoude, near Leiden (Holland), possibly in 1784. In a few cases, he acknowledged to have seen a certain bird in that collection, e.g. birds in the *Oiseaux d'Afrique*, pls.57, 82, 136 and 172. Specimens of the last two species were donated by Boers to Levaillant. Only one instance that Boers received a bird from Levaillant is recorded, a specimen of the 'Perroquet à franges soucis' (*Perroquets*, II,pl.13).

The cabinet of W.S.Boers was auctioned in The Hague starting 14 August 1797. I consulted the copy of the sales catalogue now preserved in the British Library, London, listed by Dryander (1798,I:225) from the library of Joseph Banks. It is not quite certain which Boers was the owner of the cabinet, but it may have been a son of Willem Sebastiaan Boers (1705-1754) recorded in Smit (1986:36). The sales catalogue of 78 pages documented the following number of specimens: Mammalia 1-70 (pp.1-6), Aves 1-337 (pp.7-36), Insecta 1-44 (pp.36-38), Papilliones 45-211 (pp.39-46), Testacea 1-422 (pp.47-67), Mineralia 1-234 (pp.68-77). In the introduction there is a reference to Levaillant: 'Cette collection ... non seulement renferme plusieurs espèces rares & jusqu'ici inconnuës, dont quelques unes tuées par le célèbre le Vaillant, connu par ses voyages dans l'intérieur des terres du Cap de Bonne Espérance ...' (p.3). Most species are identified by a Latin name, followed by vernacular names in French and/or Dutch, in a few cases with short explanation or descriptions.

It may be mentioned that although the sales catalogue mentions Latin names, the work is considered to be not consistently binominal and hence not available for purposes of nomenclature. It is obvious that the use of the Latin language, both for the names and for the diagnoses often makes it impossible to separate the two. It is therefore best to agree with the above conclusion as has been done up to now.

I have below given a list of those species said to occur at the Cape of Good Hope, stating the Latin name and French name, followed by the present name if it can be identified and a short note where necessary. Not all these, of course, were collected by Levaillant.

Mammals

36. 'Canis mesomelas, jakhals van de Kaap' (p.4): *Canis mesomelas*.
37. 'Felis leopardus, Kaapsche luypaart of tyger' (p.4): *Panthera pardus*.
38. 'Lynx cafra, espèce de Lynx du Cap' (p.38) not well mounted: *Felis caracal*.
39. 'Viverra cafra, ichneumon du cap' (p.4): *Herpestes ichneumon*.
67. 'Dipus cafer, de kaapsche springhaas of gerboa' (p.6): *Pedetes capensis*.
69. 'Equus zebra, jonge zebra van de Kaap' (p.6): *Equus zebra*.

Birds

2. 'Vultur papa' (p.8) variety, reference to *Ois.Afr.* 13: *Sarcoramphus papa*, not South African.
4. 'Falco serpentarius, le messager ou secretaire du Cap de bonne Esperance' (p.8): *Sagittarius serpentarius*.
5. 'Falco capensis, buse a queue rouge du Cap' (p.8) with reference to *Ois.Afr.* 16: *Buteo rufofuscus*.
6. 'Falco niger "capensis", buse à caleçon blanc' (p.8) with reference to Levaillant (no number), 'black with white belly': not identified.
8. 'Accipiter capensis, petit milan du Cap' (p.8) 'grey with white breast': *Elanus caeruleus*.
12. 'Lanius collaris, pie grieche blanc & noir du Cap' (p.8): *Lanius collaris*.
13. 'Lanius colarius, peu varié du précedent' (p.8): ? *Lanius collurio*.
15. 'Lanius olivaceus, pie grieche olivâtre du Cap' (p.8): *Telophorus olivaceus*.
45. 'Psittacus viridis, perruche verd de pomme, à tête rouge & queue bleue' (p.11): probaby *Poicephalus robustus*, described by Levaillant (1804-05, no.130) as the only parrot seen, of which he gave a specimen to Boers. The colour mentioned could point to *Agapornis roseicollis*.
49. 'Psittacus capensis, perruche verte, à tête jaune & poitrine rouge' (p.11): ? *Apaloderma narina*, but its head is not yellow.
59. 'Corvus hottentottus, choucas du Cap' (p.12): *Corvus capensis*.
79. 'Oriolus capensis, carouge du Cap' (p.13): *Oriolus oriolus*.
83. 'Gracula carunculata, le cornard du Cap, d'après le Vaillant' (p.14) the second ever present in a cabinet: *Creatophora cinerea*.
88. 'Paradisea incomparabilis, l'incomparable, d'après le Vaillant, oiseau unique & très rare' (p.11). The bird is diagnosed in Latin: 'Nigricans, abdomine splendide viridi, pectore & guta viridi aureis, cervicis fasciculo pennarum rufo nigricante convexarum; cauda cuneata 20 poll. longa; rostro nigro, pedibus nigris, à capite ad caudae apicem 31 pollices longa; rarissima, speciosissima': not identified.
92. 'Bucco capensis, barbu du Cap' (p.14): *Tricholaema leucomelas*.
99. 'Cuculus cristatus, coucou huppé du cap' (p.15): Not identified.

100, 101. 'Cuculus persa, touraco de Guinée' (p.15). Added in Dutch, that the female was used by Levaillant to attract others: *Tauraco corythaix*.
104. 'Cuculus auratus, coucou vert doré du Cap' (p.15): *Chrysococcyx caprius*.
113. 'Picus minor, petit pic du Cap, d'après le Vaillant' (p.16): Not identified.
114. 'Picus olivaceus, "Capensis", le pic olive du Cap, à tête rouge' (p.16): meant as *Geocolaptes olivaceus*, but its head is not red.
115. 'Picus capensis, le pic tacheté du Cap' (p.16) added in Dutch, with black head: ? *Dendropicos fuscescens*.
120. 'Todus paradisiacus, gobemouche blanc huppé du Cap' (p.17): *Terpsiphone viridis*.
122, 123. 'Alcedo cristata, martin pecheur des Philippines (du Cap, d'après le Vaillant)' (p.17): *Alcedo cristata*.
126. 'Alcedo capensis, martin pecheur du Cap' (p.17): Not identified.
128. 'Alcedo rudis, martin pecheur du Cap' (p.17): *Ceryle rudis*.
135. 'Alcedo chlorocephala, martin pêcheur à tête verte du Cap' (p.18): ? *Alcedo semitorquata*.
136. 'Alcedo maxima, martin pecheur huppé (p.18): *Ceryle maxima*.
138, 139 'Merops apiaster, grand guêpier du Cap' (p.18): *Merops apiaster*.
143. 'Upupa capensis, huppe du Cap' (p.19): *Upupa epops*.
147. 'Upupa viride-nigra capensis, promerops ou grimpard verd noir à taches blanches aux ailes' (p.19): *Phoeniculus cyanomelas*.
155, 156. 'Certhia chalybea, sucrier à poitrine rouge du Cap' (p.20): *Nectarinia chalybea*.
157, 158. 'Certhia chalybea' (p.20) with a little different description from 155: ? *Nectarinia chalybea*.
175. 'Aptenodites demersa, manchot du Cap' (p.22): *Spheniscus demersus*.
238. 'Tetrao perdix rufa capensis, perdrix rouge du Cap' (p.27): ? *Francolinus afer*.
242. 'Tetra [sic] perdix, perdrix grise du Cap' (p.28): *Francolinus capensis*.
243. 'Tetrao perdix capensis montana, perdrix de montagne du Cap' (p.28): *Francolinus* sp.
254. 'Alauda capensis, alouette ou calandre du Cap' (p.29): *Macronyx capensis*.
259. 'Turdus cinereus, la brève huppé de la Chine, d'après le Vaillant' (p.29): probably not South African.
261. 'Turdus zeylonicus, merle à collier du Cap' (p.29): *Telophorus zeylonus*.
264. 'Turdus morio, merle du Cap' (p.30): *Onychognathus morio*.
271. 'Ampelis nigra, cotinga noir du Cap, d'après le Vaillant' (p.30): ? *Campephaga flava*.
272. 'Colius capensis, coliou du Cap' (p.30): *Colius colius*.
277. 'Loxia oris, le cardinal du Cap' (p.31): *Euplectes orix*.
283. 'Emberiza capensis, ortolan du Cap' (p.31): *Emberiza capensis*.
287. 'Emberiza longicauda,la grande veuve du Cap' (p.32): *Euplectes progne*
307. 'Passer capensis, le republicain, d'après le Vaillant' (p.33), in Dutch 'Kaapse mus': *Passer melanurus* (?), although name republicain usually denotes *Philetairus socius*.
309. 'Fringilla butyracea, verdier du Cap' (p.33): not identified.
310. 'Fringilla capensis atra, mésange du Cap, d'après le Vaillant' (p.33): Not identified.
312. 'Muscicapa alba, gobemouche blanc à fillet noir, très rare' (p.34): maybe the nebuleux of *Ois.Afr.*149, manufactured.
313. 'Muscicapa torquata, gobemouche à collier du Cap' (p.34): maybe the cordon noir of *Ois.Afr.*150, a manufactured bird.
315. 'Muscicapa capensis, gobemouche ensanglanté du Cap, d'après le Vaillant' (p.34): *Batis capensis*.
316. 'Muscicapa cinerea, petit gobemouche, gris, du Cap' (p.34): Not identified.
320. 'Muscicapa atro albo, gobemouche noir & blanc du Cap' (p.34): Not identified.
320*. 'Muscicapa nigra, le grand cognar d'Afrique, d'après le Vaillant' (p.77) said in Dutch to be black with two long tail feathers: Not identified.
320**. 'Muscicapa capensis, rufa, gobemouche rouge à longue queue du Cap' (p.77): Not identified.
321. 'Motacilla capensis, rossignol du Cap, d'après le Vaillant' (p.34): ? *Sphenoeacus afer*.
323. 'Motacilla capensis, crivelette du Cap' (p.34): Not identified.
324. 'Motacilla capensis, le jean frederic du Cap' (p.35): *Cossypha caffra*.
326. 'Motacilla cantans, le chanteur du Cap, d'après le Vaillant' (p.35): Not identified.
327. 'Motacilla cyanocephala, pipit verd du Cap' (p.35): *Camaroptera brachyura*.
331. 'Pipra leucocephala, manaquin à tête blanche' (p.35): Not identified.
333. 'Parus capensis niger, mésange noire du Cap' (p.35): *Parus niger*.
337. 'La peau d'un petit zèbre du Cap, très complette & parfaitement conservée, rare' (p.36): Not identified, if a bird.

PART 3

Species accounts

CHAPTER 13

Mammals

In this third part of the book the information presented in parts 1 and 2 is reviewed for each species of mammal and bird. The species accounts are intended to summarize and discuss what was mentioned above, not to add new information. It was tried as much as possible to avoid repetition. The names of the explorers and the history of their records are now supposed to be known and the reader should refer to the relevant sections in the first and second parts for questions on these points.

The species accounts of the mammals are arranged in a similar style. They start with a consecutive number (for ease of reference) followed by the binominal name as currently recognised by Meester et al. (1986) and the English vernacular taken from the same source. The second line identifies the order and the family to which the species belongs. Next is a list of *drawings* of that species which were discussed in earlier parts of this book using the abbreviations introduced there. The *localities* from which the animal was recorded by Gordon, Masson, Sparrman, Thunberg, Paterson and Levaillant are given with the numbers referring to the analyses of their travel accounts in the appropriate sections in chapters 7-12. The *references* include only works mentioned in part 1 of this book. It gives the published works in the usual style, while the manuscript material is identified by the name of the traveller followed by the paragraph number in chapters 2-5 and the approximate date of the visit (=v.). 'Visit' is applied in a wide sense, including people who were resident at the Cape for a longer period.

The discussions are limited to remarks about the distribution, the taxonomy and nomenclature, the available specimens, and the history of the first distinction of that species.

The historical data on the distribution of South African mammals were analysed by C.J.Skead. This was a task full of pitfalls (Skead 1962). The results of his research to date have only been published in part, i.e. volume I of Skead (1980) treating records about the northern and western Cape, while volume II on the eastern Cape is still awaited. Skead's book is very useful as he treated all available records, without limitations of dates, arranged per species. It was not my intention to repeat his information. Inevitably, some of his sources were again discussed in this chapter. I feel, however, that I was able to add some records of mammals seen in the second half of the 18th century which supplement those given by Skead. One might ask, with Skead, if all the effort was compensated by the results. Do we really achieve a better understanding of the historical distribution of some animal species? He felt disappointed about the large gaps in the records, but added that one has to try everything possible before one can be satisfied that those gaps exist. His perception is accurate. I have added a few data, but realise that it is still impossible to answer some of the questions of zoogeography in a historical perspective.

In this chapter on mammals and in the following chapter on birds, I have discussed some proposals concerning the nomenclature of several species. The great number of names mentioned in the course of this book show the importance of this branch of taxonomy. Animals are known by their names and any change, through different understandings of their relationship or through the study of other authors, must always remain somewhat a nuisance. A historian of biology sometimes has an unpleasant role to play. It is inevitable that one is obliged, in the course of historical research, to open and study old books in a way which is not necessary for the taxonomist. Reading an obscure leaflet could result in the discovery of a name which is earlier than those hitherto accepted or which was used in a slightly different manner. Our reaction to this is often ambiguous. On the one hand, there is a sense of exhilaration, because something unknown was found. On the other hand, there is a sense of regret, because to publish such names will upset taxonomists and others. However, decisions about these early names have to be taken and it is not always wise just to keep silent.

Although I have indicated some nomenclatorial problems, I have taken no action. The names used in this book are those found in the accepted authorities. I strongly believe that history and its record are rarely straightforward. It is very easy to overlook things or to misunderstand all implications. Taxonomic and nomenclatorial actions should not be taken for their own sake, but only by an expert who can judge the meaning of the historical and taxonomic data. Some of my proposals may be accepted, others may be refuted on good grounds, and I will leave it to those concerned to take the correct decisions. The nomenclatorial proposals found in this chapter are here summarized for ease of reference:

1. The southern subspecies of the giraffe could be called *Giraffa camelopardalis giraffa* (Schreber, 1784).
2. *Damaliscus dorcas* (Pallas, 1766) maybe should be substituted by *Damaliscus pygargus* (Pallas, 1767).
3. *Arctomys vigil* Thunberg, 1811 is a good species and description, later named *Parotomys brantsii* (A.Smith, 1834).

SPECIES ACCOUNTS

1. Chrysochloris asiatica (Linnaeus, 1758)
Cape golden mole

(Insectivora: Chrysochloridae)
Drawings: FC 8, GA 232, GA 233.
Localities: Thunberg 16

The Cape golden mole occurred in the western Cape Province. Thunberg (1788:293) and Gordon saw it near Cape Town. Sparrman took a specimen to Sweden which he used to draw up his description (1783:601, 1975:154). There was a specimen in the collection of Willem V in The Hague, which was drawn several times (Tuijn & van der Feen 1969:76), described and illustrated by Vosmaer (1787a). Another animal in the possession of 'Mr.Lee of Hammersmith', possibly given by Masson, was drawn by Brown (1776,pl.XLV).

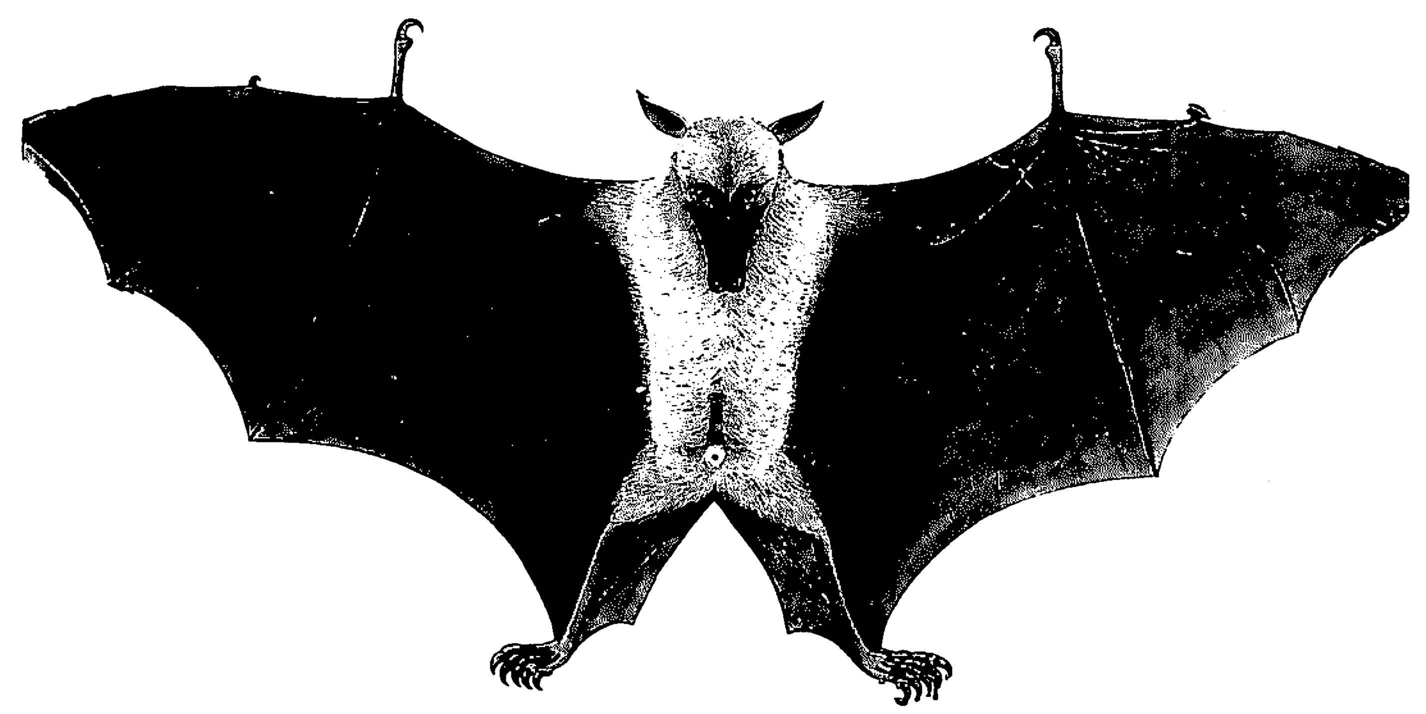


Fig. 131 Fruitbat, in the Paterson Albums (PA 37).

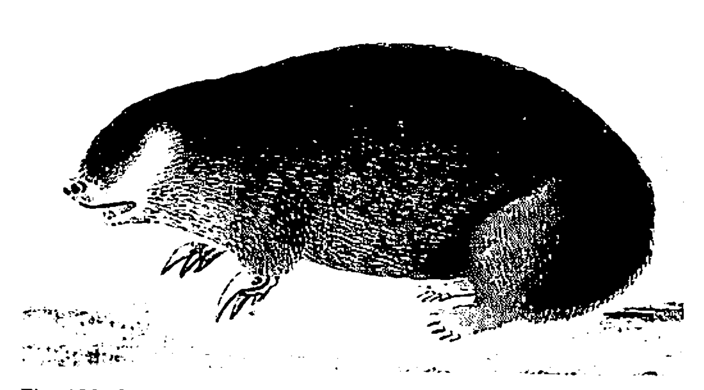


Fig. 132 Gordon Atlas (GA 233): Cape golden mole *(Chrysochloris asiatica)*.

2. Chiroptera — Bats

Drawings: PA 37, PA 38, CT 110, UBL 231.

There were just a few records of bats in the early writings and most of them are impossible to be identified specifically. The drawings in the collection of Paterson (PA 37,38) show a male and a female fruitbat. The most common species of fruitbat in the Cape Province is *Rousettus aegyptiacus* (E.Geoffroy, 1810), but the animals on the drawings differ in several respects from that species. One could also consider *Eidolon helvum* (Kerr, 1792), a migrant in South Africa, but it must have been unlikely that Paterson was able to obtain two animals of such a rare species. Maybe the drawings represent a fruitbat from India?

Levaillant's insectivorous bat is another problem. The two drawings, CT 110 and UBL 231, are similar. In his travel account, Levaillant (1795,III:294) mentioned the animal as the 'oreillarde' referring to its ear-like membranes, found just north of the Orange River. The animal was small, about 8 cm long with a wingspan of about 20 cm. His description was the basis of *Vespertilio megalotis* Bechstein (1800,II:622) as stated by Handley (1960:155). Meester (1973:1) tentatively identified the bat as *Lavia frons* (E.Geoffroy, 1810), which is otherwise unknown in southern Africa. Meester informed me that he is no longer inclined to accept this identification. Levaillant's bat therefore remains indeterminate.

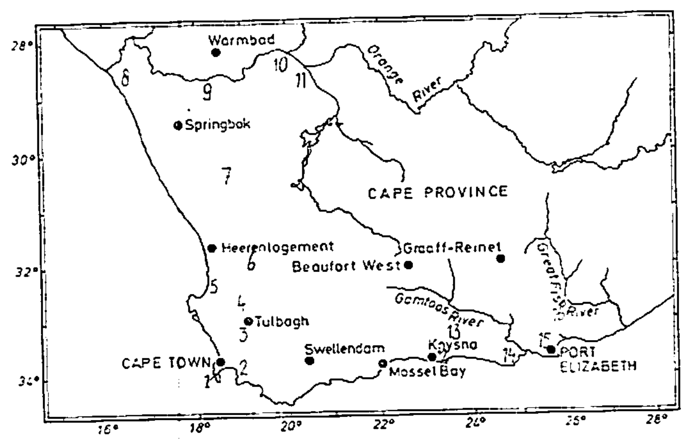
3. Papio ursinus (Kerr, 1792) — Chacma Baboon
(Primates: Cercopithecidae)

Drawings: B 60, GA 124, GA 126, CT 78, CT 111, UBL 15, UBL 167, UBL 202.

Localities: Gordon 3, 31, 34, 37, 38, 62, 66, 76, 84, 91, 92, 95, 96. Sparrman 5, 39. Thunberg 18, 38. Paterson 3, 10, 21, 45. Levaillant 3, 24, 42, 70.

References: G.Heeck (v. 1655, 2.4). Merklein 1672:1094. de Beaulieu 1664:8. Herport 1669:15. Bolling 1678:23. Schreyer 1681:83. de Lacombe (v.1680, 2.27). Nieuhof 1682:10. Tachard 1686:90. Ten Rhyne 1686:18. Schweitzer 1688:14. Frik 1692:29. Meister 1692:244. Ovington 1696:488. Tappen (1704, 4.46). Langhansz 1705:128. Maxwell 1707. Leguat 1708,II:145. Buttner (v.1713,4.58). Vogel 1716:57. Kolb 1719:137. Valentijn 1723. Barchewitz 1730:64. Schwarz 1751:30. De la Caille 1763:146, 176. Mentzel 1787:363, 364. von Wurmb & von Wollzogen 1794:86. Collins 1798:xxxiii.

The chacma baboon is still wide-spread in South Africa and it was often mentioned by the early travellers. In some cases it is difficult to decide whether the author meant the baboon or the vervet monkey, e.g. Paterson's (1789:62, 123) 'apes' seen near the Orange River (identified as *Cercopithecus aethiops* by Skead 1980). Many of the drawings show baboons kept as pets (B 60, GA 126, CT 78, UBL 15, 167, 202). CT 111 of the 'singe noir' caught at the Orange River while Levaillant was away, also shown on the engraving in Levaillant (1795,pl.17), may have been a badly skinned baboon (Meester 1973:3).



Map 1. Chacma baboon *(Papio ursinus)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Table Mountain (Levaillant 3, Thunberg 18); Cape Peninsula (Levaillant 42); Muizenberg (Sparrman 5). 2. Steenbras River (Gordon 3, Paterson 3); Hottentot Hollands Mountains (Thunberg 38). 3. Winterhoek Mountains (Gordon 91). 4. Piketberg (Gordon 92). 5. Verloorevlei (Gordon 95). 6. Draaikraal (Gordon 96). 7. Ellenboogfontein (Gordon 66). 8. Orange River mouth (Gordon 62). 9. Goodhouse (Paterson 45, Levaillant 70). 10. Aughrabies (Gordon 76). 11. Kakamas (Gordon 84). 12. Plettenbergs Bay (Gordon 38). 13. Lange Kloof (Gordon 37); Resbosrant (Paterson 10). 14. Gamtoos River (Gordon 34). 15. Coerney River (Gordon 31). 16. Koks Kraal (Levaillant 24); Somerset East (Sparrman 39).

Many specimens of the baboon must have reached Europe, although only few were recorded. Thunberg (1811c:322, 1818b:30) had a male and female of *Simia sphinx* in Uppsala. There was at least one specimen in the collection of the Leiden University (mentioned in the list of 1834). The chacma baboon was first described by Pennant (1781:180) as the 'ursine baboon' from the Cape of Good Hope. The name 'Simius ursinus' or 'Simia ursina' used by Daniel Solander on Masson's drawing B60 and in his unpublished manuscript (see 5.70) probably was based on Pennant's vernacular. This gives more credence to the suggestion of Roberts (1951:9) and Wells & Hill (1953) that Kerr's *Simia hamadryas ursinus* was meant to be another name for the ursine baboon of Pennant.

4. Cercopithecus aethiops (Linnaeus, 1758) Vervet monkey
(Primates: Cercopithecidae)

Drawings: GA ~~124~~. 125
Localities: Gordon 19, 34, 72. Sparrman 16, 17. Thunberg ~~28~~ 29. Levaillant 28, 65.

The vervet monkey was recorded in the southern and eastern Cape Province, and along the Orange River. Some of the reports may have been confused with the baboon. Gordon (GA 12~~4~~5) said that monkeys did not occur within 100 hours travel from the Cape. Few specimens in Europe were mentioned, but Thunberg (1787:25, 1811c:301) had a *Simia sabaea* in Uppsala.

5. Otocyon megalotis (Desmarest, 1822) Bat-eared fox
(Carnivora: Canidae).

Drawings: GA 128, GA 131.
Localities: Gordon 74. Sparrman 39.

The bat-eared fox is still common in the western Cape Province. It was mentioned by Sparrman (1783:582) as 'öntjes jackals' in the area around Somerset West and a similar animal was seen at 'Niez-hout-kloof' (near Sidbury). Gordon (in his journal) recorded it near the Orange River while no locality is mentioned on his drawings GA 128, 131. The animal remained unknown in Europe, except for Sparrman's uncertain description.

6. Lycaon pictus (Temminck, 1820) Wild dog
(Carnivora: Canidae)

Drawings: GA 130, CT 74.
Localities: Gordon 13, 48. Masson 4. Sparrman 13. Thunberg 24. Paterson 30. Levaillant 14, 27, 44.
References: Hondius 1652:24. Schreyer 1681:81. Nieuhof 1682:9. van Reede (v.1685, 2.30). de Chaumont 1686:5. Choisy 1687:80. Schweitzer 1688:14. Leguat 1708, II:145. Buttner (v.1713, 4.58). Vogel 1716:57. Kolb 1719:152. Valentijn 1723. Barchewitz 1730:65. Schwarz 1751:30. De la Caille 1763:292. Mentzel 1787:385.

Wild dogs no longer live in the Cape Province. Formerly they probably occurred in large areas of the region (Skead 1980). The localities listed above were in the southern and eastern Cape Province, as close to the Cape as Zwartland, Saldanha Bay and Caledon. Thunberg had a specimen in Uppsala. He (1811c:302, 1818b:30) used the name *Canis aureus*, now indicating the Asian jackal. Thunberg described the 'wilde hund' with its hunting habits and the body coloured yellow with black spots.

Although the wild dog was often mentioned by the 18th century travellers, it was first named by Temminck (1820a) from a specimen acquired from the 'Côte de Mossambique'. That animal had been sent alive to London where it was exhibited first in the Exeter Change Menagerie and after its death, in William Bullock's Museum, from where it was bought by Temminck (Alexander 1986:45-48). While still alive, the animal was drawn by Samuel Howitt (1765-1822). It is unlikely that it was the animal mentioned in the sales catalogue of Bullock's museum (Bullock 1979:66), 14 May 1819, no.11: 'Black Fox, Canis Lycaon' considering the vernacular name and the origin 'North America'.

7. Vulpes chama (A.Smith, 1833) Cape fox
(Carnivora: Canidae)

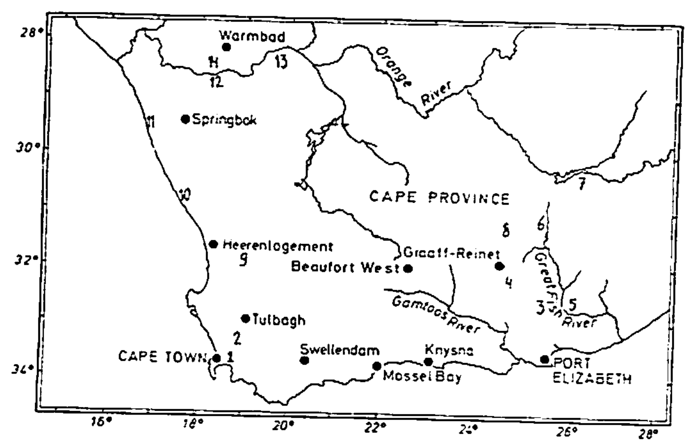
Drawing: CT 81.
References: de Beaulieu 1664:8. Bolling 1687:23. Ten Rhyne 1686:19. Ovington 1696:488.

The Cape fox is still present in the Cape Province. Maybe it was this species which Sparrman (1783:589) glimpsed between the Fish rivers. He only said that it was light red in colour and that it resembled the North African *Vulpes zerda* (Zimmermann, 1780). Forbes (1977a:144) identified it as *Herpestes sanguineus* (= *Galerella sanguinea*), which may have the reddish colour, but does not now occur in the southern Cape Province. Sparrman's comparison with the fennec may point at a dog or a fox rather than a mongoose.

8. Canis mesomelas Schreber, 1775 Black-backed jackal
(Carnivora: Canidae)

Drawings: B 50, GA 127, GA 129, CT 104, UBL 196, KB 32.
Localities: Gordon 15, 17, 25, 26, 41, 60, 64, 77, 89. Sparrman 10, 38, 39. Paterson 22. Levaillant 23, 44, 63. Starrenburg (4.48): Olifants River.
References: Hondius 1652:24. Dapper 1668:642. Ogilby 1670:588. Nieuhof 1682:9. J.Starrenburg (v.1705, 4.48). Maxwell 1707. Bogaert 1711:104. Buttner (v.1713, 4.58). Kolb 1719:150. De la Caille 1763:292. Mentzel 1787:386. Collins 1798:xxxiii.

The jackal was and is wide-spread in the Cape Province (Stuart



Map 2. Records of distribution of the black-backed jackal *(Canis mesomelas)*, 1650-1790. Approximate localities are indicated by the following numbers: 1. Vissershoek (Sparrman 10). 2. Zwartland (Levaillant 44). 3. Somerset East (Sparrman 38, 39). 4. Bruintjes Hoogte (Gordon 17). 5. Great Fish River (Levaillant 23). 6. Great Fish River (Gordon 25). 7. Bethulie (Gordon 26). 8. Hanover (Gordon 15); Paardevlei (Gordon 41). 9. Elephants River (Starrenburg 4.48). 10. Groene River (Gordon 89). 11. Port Nolloth (Gordon 60); Goewaap (Gordon 64). 12. Orange River (Paterson 22). 13. Aughrabies (Gordon 77). 14. North of Orange River (Levaillant 63).

1981:10). It was often recorded, as near to the Cape as the vicinity of Paarl and the Zwartland. Sparrman took 'several skins' to Sweden, at least one of which was incorporated in the museum of the KVA in Stockholm. Thunberg (1811c:302) recorded one in Uppsala.

9. Lutrinae (Carnivora) Otters

Two species of otter occur in South Africa, *Aonyx capensis* (Schinz, 1821) and *Lutra maculicollis* Lichtenstein, 1835. Gordon (GM 16 and Gordon locality 16) just said that there was an otter. Sparrman (1783:315) described a stuffed specimen which a farmer living near the Groot Doring River gave to him. The description is not detailed enough to be sure which species was meant.

10. Mellivora capensis (Schreber, 1776) Honey badger
(Carnivora: Mustelidae)

Drawing: GA 147.
References: Buttner (v.1713, 4.58). Kolb 1719:158. Sparrman 1777b. Mentzel 1787:392.

Both Sparrman (1777b) and Thunberg (1811c:306, 1818b:30) had a specimen in Sweden. It was rarely mentioned otherwise.

11. Ictonyx striatus (Perry, 1810) Striped polecat
(Carnivora: Mustelidae)

Drawing: GA 142.
References: Buttner (v.1713, 4.58). Kolb 1719:167. De la Caille 1763:182. Mentzel 1787:403.

Gordon (GA 142) referred to the 'zorille' described by Buffon (1770:156, pl.42) which is now supposed to indicate an American species of *Spilogale*. Both Thunberg and Sparrman had specimens. Thunberg's (1811c:322) name *Viverra zorilla* is preoccupied by *Viverra zorilla* Schreber based on the description by Buffon.

12. Arctocephalus pusillus (Schreber, 1775) Cape fur seal
(Carnivora: Otariidae)

Localities: Gordon 36, 60. Sparrman 1, 3. Thunberg 2, 8, 14. Paterson 41. Levaillant 1,4.
References: Hondius 1652:24. Merklein 1672:1094, 1106. P.van Hoorn (v.1663, 2.12). de Beaulieu 1664:8. Dapper 1668:642. Ogilby 1670:588. Schreyer 1681:81. de Chaumont 1686:5. Meister 1692:244. Langhansz 1705:133. Funnell 1707:294. Bogaert 1711:104. Wintergerst 1713:200. Beeckman 1718:179. Valentijn 1723. Ekeberg 1773:56.

Seals were often observed along the South African coast. The animal was not described in detail, nor were any specimens taken to Europe. Thunberg (1811c) regretted the lack of proper data and distinguished two species:

58. Phoca Antarctica mare australe inhabitat [total text]
59. Phoca Leonina, Zee-leuw, sive Leonic marini nomine insignita, ad littora quandoque portus capensis, Taffelbay dicti, rejecta fuit mortua [p.321].

Thunberg's *P.antarctica* (a *nomen nudum* without description, following Meester et al. 1986:99) was *A.pusillus*. His *P.leonina* probably was *Mirounga leonina* (Linnaeus, 1758), the southern elephant seal, which has been recorded in South Africa.

13. Genetta genetta (Linnaeus, 1758) Small spotted genet.
South African subspecies: *G.g.felina* (Thunberg, *1811*)
(Carnivora: Viverridae)

Localities: Sparrman 8. Thunberg 37.
References: Tachard 1686:42. Ten Rhyne 1686:19. Hesse 1687:290. Buttner (v.1713, 4.58). Kolb 1719:154. Barchewitz 1730:65.

The two South African species of *Genetta* (*G.genetta* and *G.tigrina*) were not differentiated by the early travellers. It is impossible to be sure which animal they meant from the rather short descriptions. Both Forster (1844:38) and Sparrman (1783:51) saw it at least once near the Cape.

Thunberg was the first to distinguish the small-spotted and large-spotted genets and he probably brought a specimen of each to Uppsala. At first he did not examine them carefully, because he (1787:25) only listed '*Viverra genetta*'. Later he described *Viverra felina* as a new species from 'Goda Hopps udden' (Thunberg 1811b). The paper was accompanied by an illustration depicting an obviously stuffed specimen, which must have been the one in Uppsala, to be regarded as the type specimen. Thunberg (1818b:30) listed his new species in the catalogue of animals in the Uppsala museum. It is unknown where that animal was collected. In his travel account, Thunberg (1789:129) stated that he shot a '*Viverra*' at the Booter River just east of the Cape. Because he had at least two genets, it cannot be assumed that the one shot there was the type specimen of *Viverra felina*. Schlawe (1981:121) pointed out that the illustration may not have been drawn accurately. In his text, Thunberg (1811b) diagnosed a white tip on the tail, while the tip of the tail on the plate is black.

14. Genetta tigrina (Schreber, 1776) Large-spotted genet
(Carnivora: Viverridae)

Drawing: GA 143.

Gordon (GA 143) drew this species if he was correct in giving the animal a black-tipped tail. A living genet was sent from the Cape to the menagerie of Willem V in Holland by governor Ryk Tulbagh in 1759. It lived for three years, after which it was stuffed and placed in the prince's cabinet. It was described and illustrated by Vosmaer (1771). In 1766 the animal was drawn by



Fig. 133 Gordon Atlas (GA 143): Large spotted genet *(Genetta tigrina)*.



Fig. 134 Gordon Atlas (GA 144): Suricate *(Suricata suricatta)*.

Aert Schouman 'ad vivum' but probably after the stuffed specimen; the original ink drawing is extant (Tuijn & van der Feen 1969:73, fig.5; Schlawe 1981, fig.16). This drawing was used to engrave the plate accompanying Vosmaer's description. The latter plate was copied by von Schreber (1776, pl.CXV) as *Viverra tigrina*. The drawing and especially the plates do not show the characteristics of the large-spotted genet clearly, but it is assumed that they represent *Genetta tigrina* (Schlawe 1981:130).

15. Suricata suricatta (Schreber, 1776) Suricate
(Carnivora: Viverridae)
Drawings: GA 144, GA 145, TC 733, IPA 361(b).
Localities: Levaillant 68. Van der Stel (TC 733).
References: Sonnerat 1782,II:145 (= *Mus zenik* Scopoli 1786:84).

Gordon (GA 144) knew the suricate from the interior meaning that it was not found near the Cape. Levaillant saw it near the Orange River. The species was first described as the 'Suricate' by Buffon (1763,X:73) from a specimen obtained in Holland supposed to be from Suriname. This was corrected to the Cape of Good Hope by Pallas (1766:59, 60), who saw one in the cabinet of Willem V. J.R.Forster took at least two living suricates with him to England in 1775. One died during the journey on 23 May 1775 (Hoare 1982:743). Another one presumably arrived safely, and it may have been the one 'brought alive from the Cape' examined by Pennant (1781:336, 'four-toed weasel'). Forster (1844:37) in his *Descriptiones Animalium* added to this species 'fig.picta G.' No drawing of the suricate by George Forster is now known to exist. That drawing, however, must



Fig. 135 Gordon Atlas (GA 139): Aardwolf *(Proteles cristatus).*

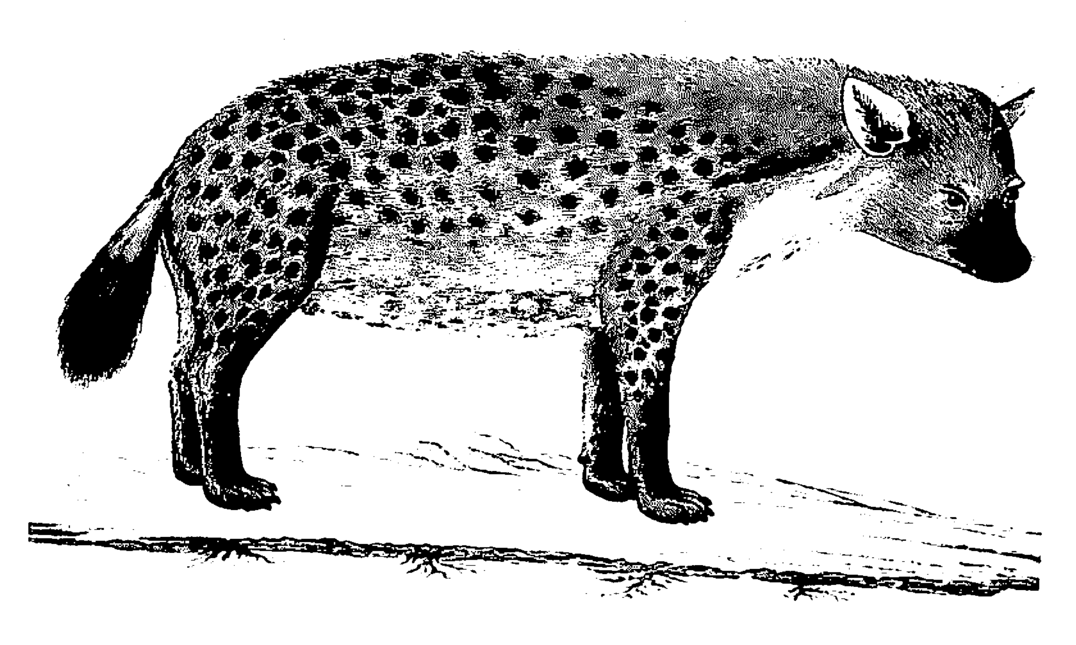


Fig. 136 Gordon Atlas (GA 135): Spotted hyena *(Crocuta crocuta).*

have been the one copied by Miller (1777-78, pl.XX) depicting '*Viverra tetradactyla*' from the Cape of Good Hope.

16. Herpestinae (Carnivora) Mongooses

Drawings: GA 141.

Localities: Sparrman 8. Levaillant 49. Wikar (5.79): Orange river.

References: Ziegenbalg & Plütscho 1709:31. Buttner (v.1713, 4.58). Kolb 1719:159. Valentijn 1723.

Several species of mongooses occur in the Cape Province. They were not differentiated clearly by the early travellers. Gordon's drawing (GA 141) shows a tame animal which may have been the small grey mongoose, *Galerella pulverulenta* (Wagner, 1839). Thunberg (1811c:305-306) listed three mongooses: *Viverra ichneumon, V.grisea* and *V.barbara*. The latter, represented by a specimen in Uppsala, was supposed to be the same as the *Mustela barbara* of Linnaeus (1758:46, now *Eira barbara*). From the description, it would appear that Thunberg had a specimen of the water mongoose, *Atilax paludinosus* (G.Cuvier, 1829). The name *Viverra ichneumon* was given by Linnaeus (1758:43) to a mongoose from Egypt, now recognised as the large grey mongoose *Herpestes ichneumon* (Linnaeus, 1758) with subspecies *cafer* (Gmelin, 1788) in South Africa. Thunberg's *Viverra grisea* was said to be similar to the *Viverra cafra* of Gmelin (1788:85), now synonymised with *V.ichneumon*. Because Thunberg probably had 2 specimens in Uppsala which he recognised to differ, it is not clear to which species they belonged.

17. Proteles cristatus (Sparrman, 1783) (Carnivora: Protelidae) Aardwolf

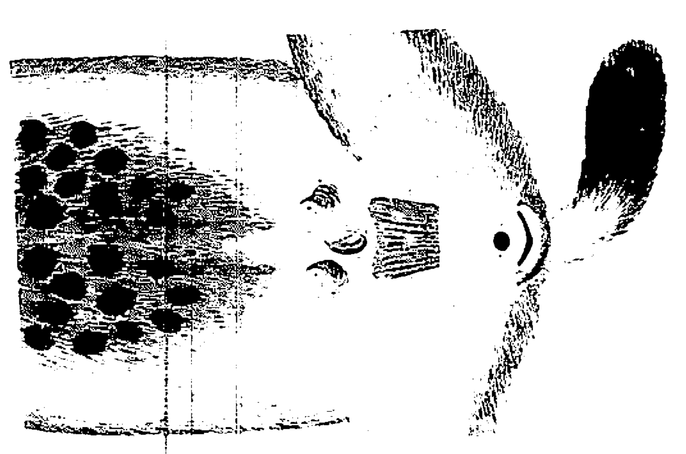
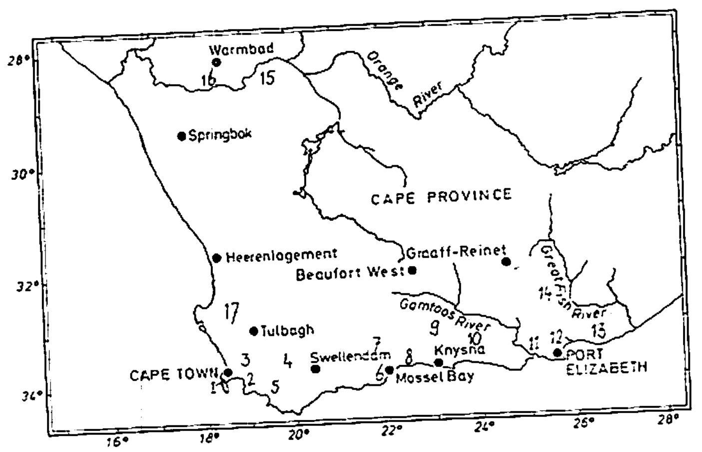


Fig. 137 Gordon Atlas (GA 137): Spotted hyena *(Crocuta crocuta)*.



Map 3. Spotted hyena *(Crocuta crocuta)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers: 1. Table Mountain (Sparrman 7). 2. Somerset West (Paterson 2); Vergelegen (Gordon 2). 3. Zwartland (Levaillant 44); Great Bergh River (Cruythoff 2.9). 4. Buffelskraal (Gordon 47). 5. Caledon (Sparrman 17, 13. Cnoll 4.53). 6. Outeniqualand (Sparrman 17). 7. Elephants River (Gordon 10). 8. Pampoen Kraal (Levaillant 12). 9. Traka River (Gordon 39). 10. Heights (Thunberg 32). 11. Gamtoos River (Gordon 35). 12. Port Elizabeth (Gordon 33). 13. Bushmans River (Sparrman 44). 14. Great Fish River (Sparrman 38); Koks Kraal (Sparrman 41). 15. Aughrabies (Gordon 76); Aiaas (Gordon 74). 16. Warmbad (Levaillant 63, 66). 17. Bergvallei (Paterson 25).

Drawings: GA 139, UBL 194, KB 30.
Localities: Sparrman 39. Levaillant 57, 63. Wikar (5.79).

Sparrman (1783:581) gave a reasonably accurate description of the 'grey jackal' with the first scientific name, *Viverra cristata*. He acquired a skin near Somerset East, but later it was taken from his waggon by dogs. Honacki et al. (1982:576) refer to a description by Sparrman in a French journal, which is erroneous.

Gordon's drawing (GA 139) is a hyena with stripes, but if it indeed depicted the aardwolf, it was not a good picture. The drawings connected with Levaillant's travels are better. Levaillant (1795,II:359) saw the animal just north of the Orange River. It was hunted by Namacquas to use the skin, also attested by Wikar who on 21 September 1778 mentioned it with the name 'naäs of den eerdwolf' (Molsbergen 1916,II:88).

18. Hyaena brunnea Thunberg, 1820 — Brown hyena
(Carnivora: Hyaenidae)
Localities: Gordon 11.

One may assume that the brown hyena formerly occurred in most parts of the Cape Province, but there are very few detailed records. Probably this must be attributed to its nocturnal habits or to confusion with other kinds of hyenas. Gordon saw it at Beervlei. Sparrman (1783:170) had heard stories about two species, the 'mountain-wolf' and the 'strandwolf'. Maybe both names indicated the brown hyena. Sparrman bought a skin from the landdrost in Swellendam which had come from the northern part of the district. He described it and took it to Stockholm.

Thunberg did not see the brown hyena during his journeys and apparently he never examined the skin brought by Sparrman, because the species is not listed in his catalogue of 1811c. Thunberg's first scientific description of *Hyaena brunnea* in 1820 did not give details about a specimen examined. However, he may have seen a skin in the collection of C.P.Forsberg, which was later given to the Uppsala University (Thunberg 1827:6).

19. Crocuta crocuta (Erxleben, 1777) — Spotted hyena
(Carnivora: Hyaenidae)
Drawings: GA 132-138, CT 105, IPA 420, AM 8.
Localities: Gordon 2, 10, 33, 35, 39, 47, 74, 76. Sparrman 7, 13, 17, 38, 41, 44. Thunberg 32. Paterson 2, 25. Levaillant 12, 44, 63, 66. P.Cruythoff (2.9): Grote Bergh R. Cnoll (4.53): Caledon.
References: Hondius 1652:24. G.Heeck (v.1655, 2.4). de Flacourt 1658:378. P.Cruythoff (v.1661, 2.9). de Beaulieu 1664:8. Dapper 1668:641. Ogilby 1670:588. Schouten 1676(B):185. Schreyer 1681:84. Nieuhof 1682:9. van Reede (v.1685, 2.30). de Chaumont 1686:5. Ten Rhyne 1686:19. Hesse 1687:49. Schweitzer 1688:14. Meister 1692:244. Cnoll (v.1710, 4.53). Vogel 1716:57. Kolb 1719:171. Valentijn 1723. Barchewitz 1730:65. De la Caille 1763:292. Kindersley 1777:54. Collins 1798:xxxiii.

The spotted hyena is now unknown in the Cape Province. The early travellers saw them in the southern and south-western Cape Province, as well as near the Orange River. Skead (1980:83) pointed at uncertainties regarding the early nomenclature. The travellers referred to the 'wolf' or 'tyger-wolf' which in some cases may have indicated another species of hyena or even a canid. It is probable, however, that at least people like Gordon and Sparrman were able to recognise the spotted hyena and that these late 18th century records in fact refer to *Crocuta crocuta*. The engraving in Levaillant (1795,II:84) depicted a spotted hyena, as did the drawings made by Gordon. These drawings are remarkable for their date. GA 133 was dated 1 July 1777, GA 132 the next day, or about a month after Gordon's arrival in Cape Town. He must have obtained these specimens near the Cape, and they were fresh enough to be examined anatomically. Gordon's anatomical sketches show his serious quest to discover the reality of stories about hermaphroditism in the hyena, which were current at the Cape in that period (Skead 1980:102). Gordon ensured that the animal's sexual parts are hidden, but that it was false that they would change from male to female, and vice versa, every year.

20. Acinonyx jubatus (Schreber, 1775) — Cheetah
(Carnivora: Felidae)
Drawing: GA 140.
Localities: Gordon 14.

Gordon recorded in his *Journal* of 14 November 1777, when he was near the Sneeuwberg, that he received a damaged skin of an animal called 'luipaart' by the local farmers. The skin was

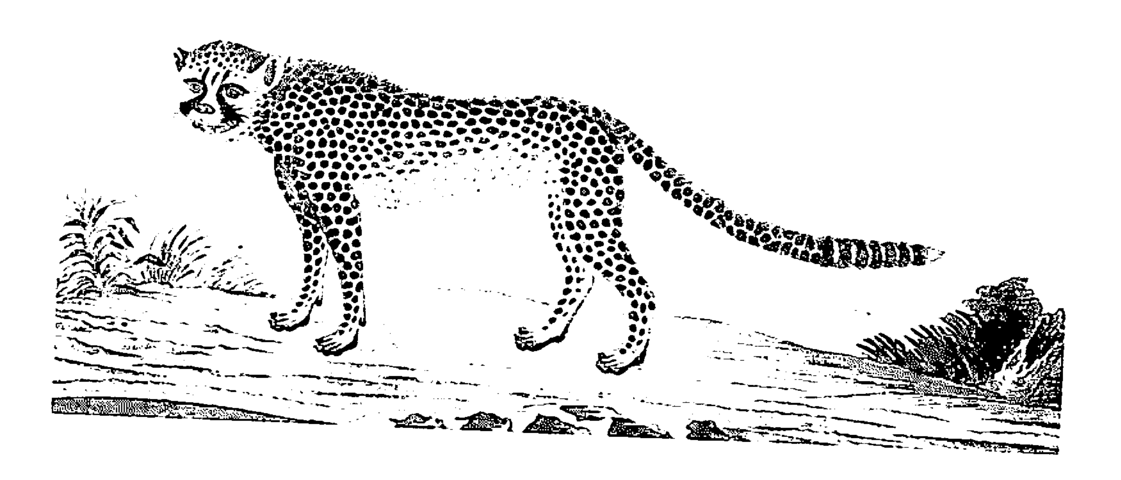


Fig. 138 Gordon Atlas (GA 140): Cheetah (*Acinonyx jubatus*).

white, somewhat yellowish, with spots like a leopard. It had manes, was 5 feet long, and had non-retractable nails like a dog. Similar information is found on GA 140 which clearly depicts a cheetah. Thunberg did not mention the cheetah in his travel account. However, later he listed it among the Cape animals (Thunberg 1798, 1811c:304). Sparrman (1783:662) discussed the 'ounce' in such a way that he must have meant the cheetah. He did not see it himself. Sparrman's use of the vernacular 'ounce' points at confusion. Skead (1980:118) suggested that the ounce was a leopard. Gordon used 'once' in his list of Cape animals besides the lion and panther (leopard). The name 'ounce' was first used by Buffon (1767,IX:68, pl.13) describing a large cat, of unknown origin, which is now assumed to have meant the snow leopard, *Panthera uncia* (Schreber, 1775), following Rieger (1980). Buffon's paper was not clear and people like Sparrman thought that the cheetah of the Cape might be the same as the ounce of Buffon. This may have been the source of an error made by Levaillant when on CT 73 he gave the name 'once' to a large cat (badly) resembling the jaguar, *Panthera onca* (Linnaeus, 1758). In his first description of the cheetah, von Schreber (1775:392, pl.105) referred to Buffon and indicated to have seen specimens from the Cape of Good Hope.

21. Panthera pardus (Linnaeus, 1758) Leopard
(Carnivora: Felidae)

Drawings: PA 25, CT 72, UBL 4.

Localities: Gordon 16. Sparrman 7, 17, 40. Thunberg 2, 40. Paterson 10, 13, 15, 22. Levaillant 1, 2, 12, 42, 44, 56, 60. Cnoll (4.53): Caledon. van Putten (4.54): Palmiet river.

References: Hondius 1652:24. G.Heeck (v.1655, 2.4). de Flacourt 1658:378. Dapper 1668:641. Herport 1669:15. Ogilby 1670:588. Schouten 1676(B):185. Tavernier 1676:506. Vermeulen 1677:13. Bolling 1678:23. Schreyer 1681:84. Hoffmann 1680:33. Nieuhof 1682:9. van Reede (v. 1685, 2.30). Tachard 1686:42. de Chaumont 1686:5. Ten Rhyne 1686:18. Choisy 1687:80. Hesse 1687:49. Schweitzer 1688:14. Meister 1692:244. Ovington 1696:488. Tappen (1704, 4.46). Langhansz 1705:125. Maxwell 1707. Funnell 1707:293. Leguat 1708,II:145. Cnoll (v.1710, 4.53). W.van Putten (v. 1710, 4.54). Lockyer 1711:295. Bogaert 1711:104. Wintergerst 1713:208. Buttner (v.1713, 4.58). Vogel 1716:57. Beeckman 1718:179. Kolb 1719:156. Valentijn 1723. Barchewitz 1730:65. Schröder 1749:238. Schwarz 1751:30. De la Caille 1763:292. Kindersley 1777:54. Mentzel 1787:391, 407, 409. von Wurmb & von Wollzogen 1794:86. Collins 1798:xxxiii.

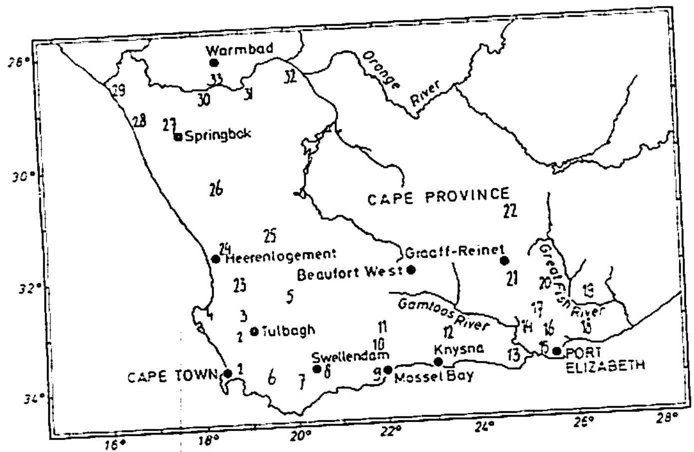
The leopard is still present in many parts of the Cape Province. There were many records of 'tygers' in the southern, south-western and north-western Cape Province. Paterson's drawing of a young leopard was poor. It may have been South African, but could also have come from India. Levaillant did not record the whereabouts of the specimen shown on his watercolours; it may have been in Paris and the animal may not have been South African. Both Sparrman and Thunberg brought specimens to Sweden. The leopard had already been described and these skins did not attract further attention.

22. Panthera leo (Linnaeus, 1758) Lion
(Carnivora: Felidae)

Localities: Gordon 6, 7, 10, 11, 32, 33, 39, 42, 44, 52, 61, 71, 77, 83, 86, 87, 93, 96, 98, 102. Masson 11, 13, 14, 18, 20. Sparrman 13, 17, 24, 31, 34, 37, 38, 41, 48. Thunberg 11, 34, 44. Paterson 4, 6, 9, 12, 15, 18, 20, 30, 38, 39, 42, 44, 47. Levaillant 19, 20, 23, 24, 29, 60, 64, 67. P.Cruythoff (2.9). J.v.Herwaerden (2.6). J.Croese (2.18). Starrenburg (4.48). Cnoll (4.53). Coetsé (5.67). Swellengrebel (5.75). van Plettenberg (5.77). Hop (5.78).

References: Hondius 1652:24. G.Heeck (v.1655, 2.4). J.v.Herwaerden (v.1658, 2.6). de Flacourt 1658:378. P.Cruythoff (v.1661, 2.9). Saar 1662:158. Merklein 1672:1094. P.van Hoorn (v.1663, 2.12). de Beaulieu 1664:8. Dapper 1668:641. Herport 1669:15. Andersen 1669:4. J.Croese (v.1669, 2.18). Ogilby 1670:588. Schouten 1676:8, (B):185. Tavernier 1676:508. Vermeulen 1677:13. Bolling 1678:23. Hoffmann 1680:33. de Lacombe (v.1680, 2.27). Nieuhof 1682:8. van Reede (v.1685, 2.30). Wurffbain 1686:235. Tachard 1686:89. de Chaumont 1686:5. Ten Rhyne 1686:18. Choisy 1687:80. Hesse 1687:49. Schweitzer 1688:14. de Rennefort 1688:218. Frik 1692:28. Meister 1692:244. Ovington 1696:488. Langhansz 1705:120. J.van Starrenburg (v.1705, 4.48). Maxwell 1707. Funnell 1707:293. Leguat 1708,II:145. Ziegenbalg & Plütscho 1709:31. Cnoll (v.1710, 4.58). Lockyer 1711:295. Bogaert 1711:103. Wintergerst 1713:208. Buttner (v.1713, 4.58). Vogel 1716:57. Beeckman 1718:179. Kolb 1719:154. Valentijn 1723. Barchewitz 1730:65. Schwarz 1751:30. Coetsé (v.1760, 5.67). De la Caille 1763:292. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). Hop (5.78), 1778:23. Mentzel 1787:387. von Wurmb & von Wollzogen 1794:86.

The lion had been known in Europe since early times through animals from North Africa and possibly India. There is no doubt that the lion occurred all over the Cape Province. It was recorded everywhere between the Cape Peninsula and the Orange River in the north, and the Great Fish River in the east. Skead (1980:147-187) carefully extracted the early reports and the stories about the danger of the lions and how they were hunted. In the second half of the 18th century, the lion had become extinct near the Cape (c.1725), but it was still observed in the



Map 4. Lion (*Panthera leo*): records of distribution 1650-1790. Approximate localities are indicated by the following numbers: 1. Tierberg (van Herwaerden 2.6). 2. Riebeeck Casteel and Great Bergh River (Cruythoff 2.9). 3. Piketberg (Cruythoff 2.9). 4. Berg River (Gordon 93). 5. Doring River (Paterson 15). 6. Caledon (Sparrman 13, Paterson 6, Cnoll 4.53); Dolphy River (Croese 2.18). 7. Avontuur (Gordon 6). 8. Swellendam (Gordon 7); Warmwaterberg (Paterson 12). 9. Outeniqualand (Sparrman 17). 10. Elephants River (Gordon 10). 11. Queekvalley (Gordon 98). 12. Beervlei (Gordon 11, Paterson 9); Traka River (Gordon 39). 13. Gamtoos River (Masson 11); Leeuwenbosch (Sparrman 24); Seacow River (Thunberg 11). 14. Groot Winterhoek Mountains (Gordon 102). 15. Kraggakamma (Sparrman 48, Thunberg 34); Coega River (Paterson 30, Levaillant 19); Port Elizabeth (Gordon 33, Masson 13, 14). 16. Sundays River (Gordon 32). 17. Sundays River (Levaillant 20, Sparrman 31). 18. Bushmans River (Sparrman 34, Swellengrebel 5.75); Great Fish River (Levaillant 23). 19. Fish rivers area (Sparrman 37, 38). 20. Koks Kraal (Sparrman 41, Levaillant 24); Vogel River (Levaillant 29); Plaswater (Swellengrebel 5.75). 21. Vrede (Gordon 44). 22. Seacow River (Gordon 42); Champagnepoorts River (van Plettenberg 5.77). 23. Olofs Fontein (Starrenburg 4.48). 24. Elephants River (Gordon 52, Masson 18); Klawer (Starrenburg 4.48). 25. Rhinoceros River (Masson 20, Thunberg 44); Doring River (Paterson 20, 38); Rietfontein (Paterson 18). 26. Ellenboogfontein (Paterson 47); Kookfontein (Paterson 39). 27. Small Brack Fontein (Paterson 44). 28. Holgat River (Gordon 61). 29. Orange River mouth (Paterson 42). 30. Ramans Drift (Levaillant 60). 31. Nanseep (Gordon 71); Sandfontein (Gordon 86). 32. Aughrabies (Gordon 77); Upington (Gordon 83). 33. Area around Warmbad (Gordon 87, Levaillant 64, 67).

southern and western Cape Province (Speight 1964).

One curious and unfortunate circumstance is that none of the collections of drawings described in this work contain a representation of the Cape lion. Gordon, for instance, knew the animal well, probably shot several, but it is one of the few species of larger mammals absent from the Gordon Atlas. Presumably there was little interest to draw them, because the lion was so well-known. Depictions of the lion of the Cape Province are very rare. Mazak & Husson (1960) pointed out that the lion sketched by Rembrandt van Rijn (1606-1669) in c.1650, could have been a Cape specimen. Other lion studies by the same painter were discussed by Kurz (1936).

It is still a matter of contention if the Cape lion should be regarded as a separate subspecies, *Panthera leo melanochaita* (H.Smith, 1842). The available evidence on this animal was collected by Mazak (1975). Among the characteristics of the subspecies, he mentioned the heavy manes extending to the belly in males, and the large size, besides some features of the skull. Very few specimens of the Cape lion are present in the world's museums. For a long time, it was assumed that there was only one, a mounted male in the Junior United Services Club, London, now in the British Museum (Natural History), London (Palmer 1950, Mazak 1975:33). To this can be added a specimen in the Rijksmuseum van Natuurlijke Historie, Leiden, described by Mazak & Husson (1960) as well as a few others listed by Mazak (1975). All these animals were collected in the 19th century, as far as it can be deduced from the accompanying labels.

The specimens of lions connected with the travels of Gordon, Sparrman and Thunberg are no longer recognised. There is no evidence that Gordon sent a lion to Europe. *Felis leo* is listed with 3 mounted specimens in the 1834 list of specimens from the collection of Leiden University. This does not imply that they came from the Cape of Good Hope or that Gordon was involved. One may assume that they came from other areas. Sparrman did not mention that he brought a lion from the Cape to Sweden. However, a specimen (with unstated origin) was listed in the KVA collection, Stockholm in 1783. No specimen from the Cape brought in the 18th century is now recognised in the natural history museum of Stockholm. Mazak (1975:4) listed an animal in that collection, but it was stated to have been collected by J.Wahlberg in 1845. Thunberg (1811c:322) mentioned skins of a male and female *Felis leo* brought from the Cape to Uppsala (also recorded in Thunberg 1818b:30). The whereabouts of these specimens is unknown. Mazak did not list them in the museum of natural history at Uppsala.

Thunberg (1811a) recorded the presence of a lion specimen in the collection of the Hollandsche Maatschappij der Wetenschappen in Haarlem, which was started in 1759 (Tuijn 1971). Its origin was not revealed. One could wonder if this could be the Cape lion now present in the Zoological Museum of Amsterdam, because part of the Haarlem collection went to Artis in 1866 (and then later to the museum). However, this suggestion appears to be contradicted by the remark by Smit (1986:108) that the transaction concerned 'all sorts of lower animals' and by the data given by Mazak (1975:5) about the specimens in Amsterdam.

23. Felis caracal (Schreber, 1776) — Caracal

(Carnivora: Felidae)

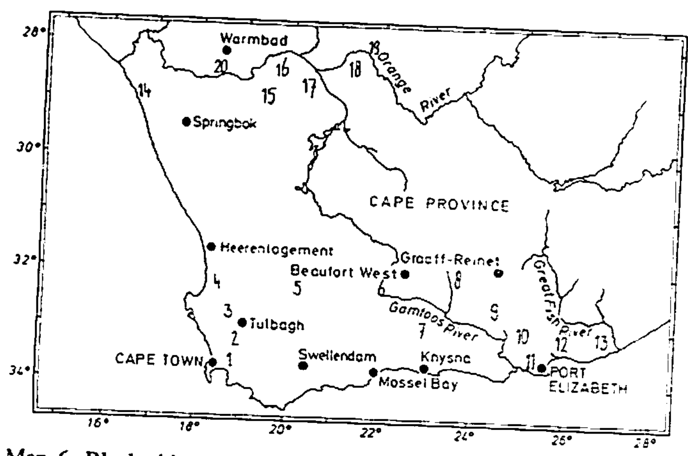
Drawings: CT 106, UBL 195, KB 31.

Localities: Thunberg 43.

References: Ten Rhyne 1686:19. Buttner (v.1713, 4.58). Kolb 1719:153. Valentijn 1723. Barchewitz 1730:65.

The caracal probably was as wide-spread in the Cape Province in the 18th century as it is now. Its nocturnal habits are responsible for few definite records. Gordon (GM 16) listed it as 'rode kat' or 'courak koulak' but there is neither drawing nor description. Sparrman (1783:154) examined a skin, which he may have taken to Stockholm. Thunberg (1789:204) saw it near Tulbagh and he brought a skin to Uppsala. Levaillant (1795,II:319) bought a skin north of the Orange River. Maybe this was the specimen depicted on the drawings, although the locality on those three nearly identical drawings is given as 'Pays d'Auteniquoi' in the southern Cape Province. Von Schreber (1776:413, pl.110) described the species 'nach einem Balge ..., welche den herr hauptmann Bodenschatz vom Vorgebirge der guten hoffnung mitgebracht, und mir nebst mehreren ... Löwen-Panther-Leopard-Gepard-und andern Fellen geneigt mitgetheilet hat.'

Map 5. Elephant *(Loxodonta africana)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Outeniqualand (Sparrman 17, Swellengrebel 5.75). 2. Outeniqua Mountains (Masson 9); Swart River (Levaillant 13); 3. Plettenberg Bay (Levaillant 14); Poort (Levaillant 15). 4. Gamtoos River (Levaillant 16, Masson 11). 5. Zwartkops River (Thunberg 35, Masson 14); Kraggakamma (Thunberg 34). 6. Sundays River (Sparrman 31); Paterson (Paterson 32); Coerney (Gordon 104). 7. Cafferland (Paterson 34). 8. Great Fish River (Paterson 33). 9. Elephants River (van der Stel, chapter 3). 10. Elephants River (Cruythoff 2.9, Coetse 5.67). 11. Elephants River mouth (Gordon 52, Hop 5.77). 12. Ellenboogfontein (Levaillant 54); Groen River (Levaillant 71). 13. Kookfontein (Paterson 39). 14. Buffels River (Paterson 40, Gordon 58). 15. Orange River mouth (Gordon 62, Paterson 42). 16. Goodhouse (Paterson 21, 45, Levaillant 60). 17. Nanseep (Gordon 71); Kalagas (Wikar 5.78). 18. Aughrabies (Gordon 76, 77, 79, 85, Wikar 5.78). 19. North of Orange River (Gordon 78). 20. Warmbad (Levaillant 62).



Map 6. Black rhinoceros *(Diceros bicornis)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Tierberg (van Herwaerden 2.6, Cruythoff 2.9); Mosselbank River (Cruythoff 2.9). 2. Riebeecks Casteel (Cruythoff 2.9); Kleine Bergh River (Cruythoff 2.9). 3. Greys Pass (Cruythoff 2.9); Piketberg (Cruythoff 2.9, van der Stel chapter 3); Groene Kraal (Starrenburg 4.48). 4. Roode Klipheuvel (Starrenburg 4.48). 5. Rhinoceros Bosch (Paterson 16). 6. Gamka River (Gordon 45). 7. Kariega River (Schryver 2.41). 8. Aberdeen (Gordon 12). 9. Melk River (Swellengrebel 5.75). 10. Sundays River (Gordon 32). 11. Coega River (Paterson 30); Paterson (Paterson 32); Kraggakamma (Thunberg 34); Zwartkops River (Thunberg 35). 12. Kommedagga (Sparrman 36, 43). 13. Great Fish River (Paterson 33, 35, Swellengrebel 5.75). 14. Holgat River (Gordon 61). 15. Kabas (Gordon 70). 16. Orange River (Wikar 5.78); Nanseep (Gordon 71, 73). 17. Aughrabies (Gordon 75, 76, 77). 18. Orange River (Gordon 79, 83). 19. North of Orange River (Gordon 78). 20. Warmbad (Paterson 46, Levaillant 62, 65, 66).

24. Felis serval Schreber, 1776 — Serval
(Carnivora: Felidae)

Drawings: FC 5, FC 6.
Localities: Sparrman 17, 35. van der Stel (4.9.1685). van Putten (4.54).
References: Hesse 1687:290. Meister 1692:244. Tappen (1704, 4.46). Langhansz 1705:126. W.van Putten (v.1710, 4.54). Bogaert 1711:104. Buttner (v.1713, 4.58). Kolb 1719:154. Valentijn 1723. De la Caille 1763:292.

The serval occurred in most of the Cape Province (Stuart 1981:48), but there are few accurate records. Sparrman saw it at Mossel Bay and near Port Elisabeth. He said (1783:161) that he took two skins to Stockholm. Thunberg (1811c:322, 1818) recorded a specimen in Uppsala. The first name in von Schreber (1776,III:407, 1776, pl.108) was based on a note in Buffon. The species was described in detail by J.R.Forster (1781) accompanied by a plate which has counterparts in the drawings by his son George (FC 5, 6) and in the engravings by Miller (1782, 1796, pl.39).

25. Felis lybica Forster, 1780 — African wild cat
(Carnivora: Felidae)

Localities: Sparrman 13.
References: Schreyer 1681:84. Tachard 1686:89. Ten Rhyne 1686:19. Leguat 1708,II:145. Buttner (v.1713, 4.58). Kolb 1719:179. Barchewitz 1730:65.

As suggested by Skead (1980:11), the name 'wild cat' was applied so liberally to all kinds of cats and even genets, that most references thereby become useless. Sparrman (1783:153) shot a grey wild cat at Caledon and he recorded a few dimensions: tip of nose to anus 21¾ inches (55 cm), height about 1½ feet (45 cm). Thunberg (1811c:322) found it at the Cape and he took two specimens to Uppsala (listed as '*Felis chaus*' male and female).

26. Loxodonta africana (Blumenbach, 1797) — Elephant
(Proboscidea: Elephantidae)

Drawings: CT 96, UBL 153.
Localities: Gordon 52, 58, 62, 71, 76, 77, 78, 79, 85, 104. Masson 9, 11, 14. Sparrman 17, 25, 31. Thunberg 34, 35, 40. Paterson 21, 32, 33, 34, 39, 40, 42, 45. Levaillant 13, 14, 15, 16, 51, 54, 60, 62, 71. Cruythoff (2.9). Coetsé (5.67). Swellengrebel (5.75). Hop (5.78). Wikar (5.79). van der Stel (ch.3).
References: Hondius 1652:24. de Flacourt 1658:378. Cruythoff (v.1662, 2.9). Saar 1662:158. de Beaulieu 1664:8. Dapper 1668:641. Herport 1669:15. Ogilby 1670:588. Bolling 1678:23. Schreyer 1681:78. Hoffmann 1681:33. de Lacombe (v.1680, 2.27). Tachard 1686:42. de Chaumont 1686:5. Ten Rhyne 1686:19. Choisy 1687:80. Schweitzer 1688:14. Frik 1692:29. Meister 1692:244. Maxwell 1707:293. Leguat 1708,II:145. Bogaert 1711:104. Wintergerst 1713:208. Buttner (v.1713, 4.58). Vogel 1716:57. Beeckman 1718:179. Silleman & Thysz. 1718:14. Kolb 1719:148. Valentijn 1723. Barchewitz 1730:65. Schwarz 1751:30. Coetsé (v.1760, 5.69). De la Caille 1763:158, 292. Swellengrebel (v.1776, 5.75). Hop (5.78). Hop 1778:11-12. Wikar (v.1778, 5.79). Mentzel 1787:372. von Wurmb & von Wollzogen 1794:86.

Although the elephant today only survives in two places in the southern Cape Province, it was much more wide-spread before (Skead 1980:195-241). There is no evidence relating to the Cape Peninsula itself, but elephants were found in the vicinity. In the second half of the 18th century, the retreat had begun. Thunberg (1986:278) noted their extermination at the Piketberg, some 150 km north of the Cape. However, travellers like Gordon, Masson, Sparrman, Thunberg, Paterson, Levaillant and others encountered them with some regularity in the south-

ern and north-western Cape Province, as well as across the Orange River in southern Namibia.

Due to the elephant's bulk, complete specimens were rare in Europe. Sparrman (1783:327, 347) took a molar and a tail to Stockholm. In the list of specimens transferred from the old collection of the Leiden University to the RMNH (in 1834) there was mentioned a skeleton (or part of it) of *Elephas africanus* – but it was not necessarily from the Cape of Good Hope. Accurate details about the animal's morphology were therefore hard to find. Most authors, at least implicitly, assumed that the African elephant was conspecific, or at most an aberration, of the Indian species, *Elephas maximus* (Linnaeus, 1758). The elephant in general was so well known that there was little incentive for further investigation. This may also explain the lack of pictorial material. Levaillant's drawings show the Indian species. Gordon did not leave a separate elephant drawing, but there is a small representation on his large map of southern Africa (reproduced in Forbes 1965 and Willcox 1986:36), but even here the smallish ears remind one of the Indian counterpart.

27. Diceros bicornis (Linnaeus, 1758) Black rhinoceros
(Perissodactyla: Rhinocerotidae)

Drawings: GA 205, 206, 207, 208, 210, 211, PA 17, CT 101, UBL 210, Swellengrebel SP 21, 22, 22a.

Localities: Gordon 12, 32, 45, 61, 70, 71, 73, 75, 76, 77, 78, 79, 83. Sparrman 36, 43. Thunberg 34, 35. Paterson 16, 30, 32, 33, 35, 46. Levaillant 62, 65, 66. Gabbema (2.4). Herwaerden (2.6). Cruythoff (2.9). Schryver (2.41). Starrenburg (4.48). Coetsé (5.67). Swellengrebel (5.75). Hop (5.78). Wikar (5.79). van der Stel (ch.3).

References: J.Blank (v.1652, 2.3). A.Gabbema (v.1657, 2.5). J.v.Herwaerden (v.1658, 2.6). de Flacourt 1658:378. P.Cruythoff (v.1661, 2.9). Dapper 1668:641. Herport 1669:15. Ogilby 1670:588. Schouten 1676(B):185. Bolling 1678:23. Hoffmann 1680:33. de Lacombe (v.1680, 2.27). Nieuhof 1682:9. Tachard 1686:42. Ten Rhyne 1686:19. Hesse 1687:80. Schweitzer 1688:14. de Rennefort 1688:218. I.Schryver (v.1689, 2.41). Meister 1692:244. Tappen (1704, 4.46). J.Starrenburg (v.1705, 4.48). Maxwell 1707. Leguat 1708,II:145. Ziegenbalg & Plütscho 1709:31. Lockyer 1711:296. Bogaert 1711:104. Wintergerst 1713:208. Buttner (v.1713, 4.58). Vogel 1716:57. Beeckman 1718:179. Kolb 1719:159. Valentijn 1723. Barchewitz 1730:65. Schröder 1749:238. Schwarz 1751:30. Coetsé (v.1760, 5.67). De la Caille 1763:157. Swellengrebel (v.1776, 5.75). Hop (5.78). Hop 1778:37-38. Wikar (v.1778, 5.79). Mentzel 1787:392.

The treatment of the black rhinoceros here will follow the structure established for other species. I have dealt with various other and partly overlapping aspects of rhinoceros history and biology earlier, i.e. the taxonomy of the extinct Cape subspecies (Zukowsky 1965:15-37, Rookmaaker & Groves 1978), the significance of Gordon's drawings (Cave & Rookmaaker 1977, all illustrated), the strange circumstances leading to the naming of *Rhinoceros gordoni* Lesson, 1842 (Rookmaaker 1983b:55, 1983c:44), the first naturalistic representation of the black rhinoceros by Jan Wandelaar in the Dutch edition of Kolb (Rookmaaker 1976) and the iconography of the double-horned rhinoceroses until 1800 (Rookmaaker 1985a).

Apparently the black rhinoceros once occurred in large parts of the Cape Province. There were early records even from the vicinity of the Cape. In the second half of the 18th century the species was only found in the eastern Cape Province and in the area just north of the Orange River in the west. It has been accepted that the nominate subspecies *Diceros bicornis bicornis* was restricted to the Cape Province and southern Namibia. Judging from the few available specimens, it appears larger than the rhinoceroses in surrounding areas, allocated to *Diceros bicornis minor* (Drummond, 1876), for instance in Meester et al. (1986:172-173).

There were only few specimens in Europe. Sparrman brought a skull with the horns, a penis and vertebrae to Stockholm, where at least the skull, and probably the horns, are still preserved in the zoological museum (discussed and figured by Zukowsky 1965:22-27, fig.5). Thunberg did not have a specimen in Uppsala. Other specimens came to Holland. Petrus Camper received a skull and skin of the head in 1771 from the Cape of Good Hope (Rookmaaker & Visser 1982:123, Visser 1985:39 ff.). Gordon wrote to Fagel on 24 April 1779 that he was sending drawings, notes and a skin of the rhinoceros to Holland. Allamand (1781:9-13, pl.5) based his description on these notes and his plate was copied from one of the drawings. Vosmaer (1800:267) too possessed some rhinoceros drawings attributed to Gordon. The fate of the skin is uncertain, even if it arrived at all. There is no reference to suggest that it was kept in either The Hague or in Leiden.

It is unlikely that the white rhinoceros, *Ceratotherium simum* (Burchell, 1817), ever occurred in the Cape Province. The early references may be vague, but I do not believe that suggestions of the white rhino's presence even in the eastern Cape Province are based on fact.

28. Equus zebra Linnaeus, 1758 Mountain zebra,
Equus burchellii (Gray, 1824) Burchell's zebra
(Perissodactyla: Equidae)

Drawings: GA 189, 191, 192, UBL 156, 157, van der Stel AM 5, IPA 419.

Localities: Gordon 7, 11, 12, 18, 47, 48, 58, 62, 63, 67, 71, 74, 75, 86, 87, 88, 90, 92, 96. Masson 12, 15, 16, 20. Sparrman 12. Thunberg 34, 35, 36, 44. Paterson 6, 7, 27, 29, 42, 46. Cruythoff (2.9). van der Stel (ch.3). Hop (5.78).

References: P.Cruythoff (v.1661, 2.9). Tavernier 1676:505. Tachard 1686:42. Ten Rhyne 1686:19. Choisy 1687:80. Schweitzer 1688:24. I.Schryver (v.1689, 2.41). Meister 1692:244. Dampier 1697:533. Tappen (1704, 4.46). Langhansz 1705:127. Maxwell 1707. Leguat 1708,II:145. Lockyer 1711:295. Bogaert 1711:104. Wintergerst 1713:208. Beeckman 1718:179. Kolb 1719:146. Valentijn 1723. Schwarz 1751:30. Kindersley 1777:54. Hop (5.78). Hop 1778:43. Wolf (v.1782, 5.81). Mentzel 1787:376, 411. Collins 1798:xxxiii.

Zebras, presently almost exterminated in the Cape Province, were a common sight in the 18th century. It has often been noted (eg. Skead 1980:312) that it is often impossible to be sure which species was meant. Even quaggas probably were called zebras, and vice versa. Smithers (1983) and Meester et al. (1986) recognise three forms: (1) the Cape mountain, *Equus zebra zebra* (Linnaeus, 1758) which lived in the Cape Province; (2) *Equus zebra hartmannae* Matschie, 1898 which may have occurred in southern Namibia, possibly extending to the N.W. and N. Cape Province; and (3) *Equus burchellii* (Gray, 1824) formerly present in the N.E.Cape province and in the Orange Free State. The available historical records discussed here do not allow suggestions even about tentative boundaries of ranges or other taxonomic comments. If anything, they are more confusing than otherwise.

Gordon's drawing GA 191 of a zebra would be expected to represent *Equus zebra*, but several characteristics are lacking: the legs are stripeless, the stripes on the rump are not noticeably broader than elsewhere, the 'grid-iron' pattern above the rump is invisible. The zebra drawing in the Brenthurst Libary (see

Fig. 139 Gordon Atlas (GA 189): Burchell's zebra *(Equus burchellii)*.

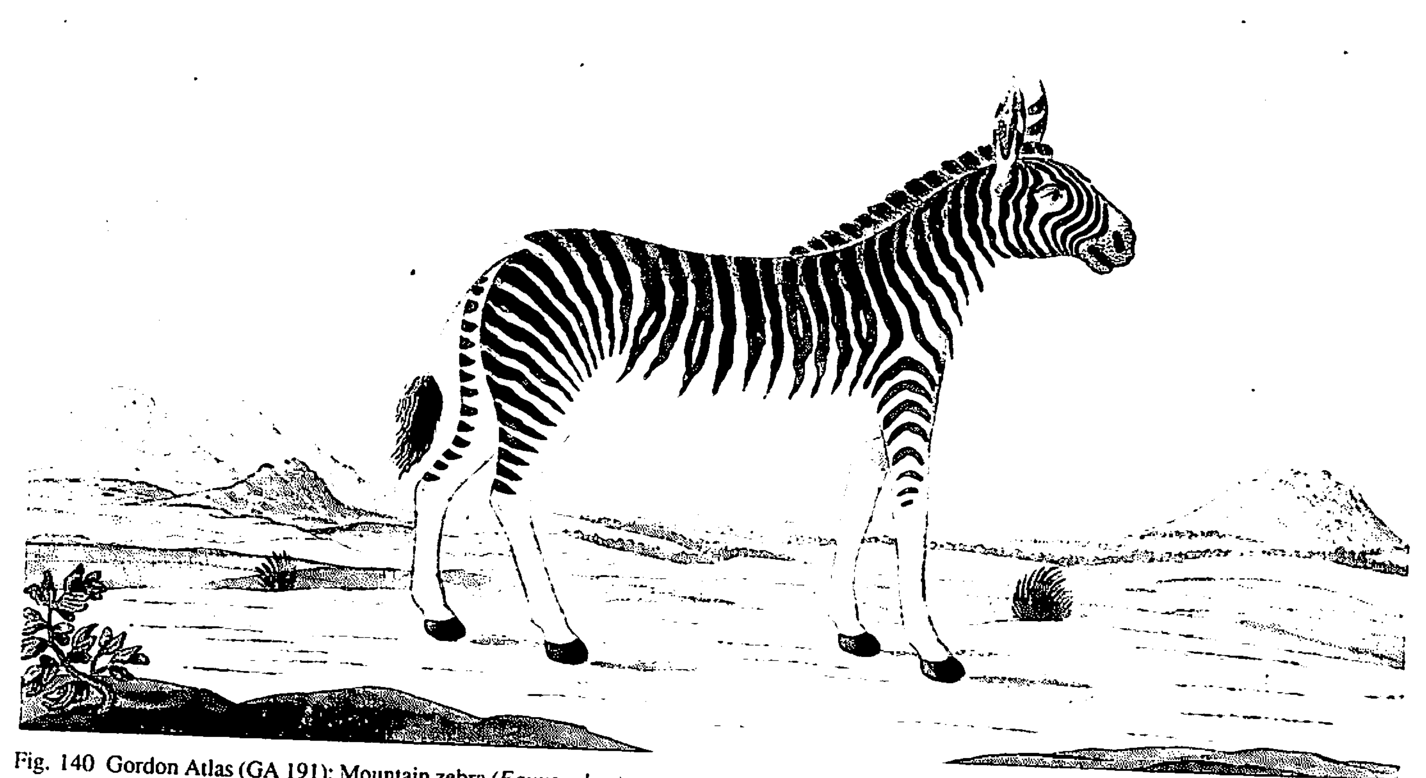
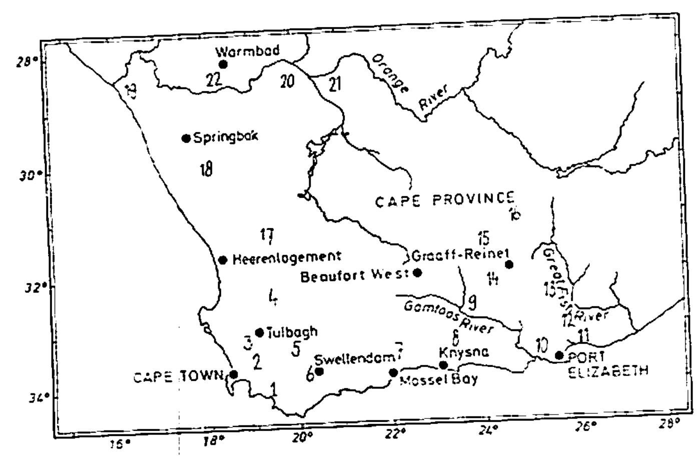


Fig. 140 Gordon Atlas (GA 191): Mountain zebra *(Equus zebra)*.



Map 7. Quagga *(Equus quagga)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Palmiet River (Cnoll 4.53). 2. Groote Bergh River (van Herwaerden 2.6); Perdeberg (Cruythoff 2.9). 3. Riebeeck Casteel (de la Caille 5.68). 4. Kleine Bergh River (Cruythoff 2.9). 5. Buffelskraal (Gordon 47). 6. Swellendam (Sparrman 15). 7. Zwarte Berg (Swellengrebel 5.75). 8. Beervlei (Gordon 11); Traka River (Gordon 39); Boesmans River (Gordon 40); Dienie Douw (Gordon 101); Kariga River (Swellengrebel 5.75). 9. Kraai River (Swellengrebel 5.75). 10. Zwartkops River (Sparrman 28, Thunberg 35, Masson 14); Boknes River (Gordon 103); Port Elizabeth (Gordon 33); Witteklip (Paterson 29); Kraggakamma (Thunberg 34). 11. Sundays River (Gordon 32, Sparrman 33); Coerney (Gordon 104); Hassegai-Bosch (Sparrman 45); Bosjesmans River (Swellengrebel 5.75). 12. Kommedagga (Sparrman 36); Great Fish River (Swellengrebel 5.75). 13. Great Fish River (Sparrman 38, 39). 14. Aberdeen (Gordon 12). 15. Sneeuwberg (Gordon 15). 16. Seacow River (Gordon 16); Plettenberg River (van Plettenberg 5.77). 17. Bokkeveld (Gordon 51); Louwsdrift (Paterson 17). 18. Ellenboogfontein (Levaillant 54). 19. Orange River mouth (Paterson 42). 20. Aughrabies (Gordon 85); Kakamas (Gordon 84); Haris (Wikar 5.78). 21. Upington (Gordon 81). 22. Warmbad (Levaillant 65).

7.4.3) has some similarities with GA 191 as well as some differences. The general pattern of stripes looks alike, but the legs are striped down to the hoofs. Gordon's drawing GA 189 was dated November 1777 when he was north of Sneeuwberg. He was uncertain about the identity of the animal, because he had never seen something like it, and he assumed that it was a 'kind of kwagga, or rather a hybrid between kwagga and zebra.' Palmer (1951) and Forbes (1965, fig.45) gave this drawing as one of the quagga. The animal has a white belly, white legs, and shadow-stripes on the rump. Later, on 22 February 1790, Gordon received a skin of a similar animal, which he probably depicted on GA 192 (no shadow stripes were visible). This last specimen was brought from a region north of the Aughrabies Falls in the Orange River. On account of the shadow-stripes seen on GA 189, I tentatively identified it as *Equus burchellii*; but as both records of GA 189 and GA 192 are outside the known or assumed range of distribution of that species, I may well be incorrect.

A few Cape zebras were brought to Europe. Thunberg (1811a) mentioned one brought by De la Caille to Paris. He himself (1787:25, 1818b:30, 1811c:322) took the skins of an adult and a young to Uppsala. Sparrman may have had one in Stockholm, as it was listed in a catalogue of the KVA collection.

Levaillant (1795,III:37), when telling about his stay north of the Orange River, said that he found an almost unstriped zebra of yellowish-white colour, an 'âne sauvage de couleur isabelle'. This animal is still enigmatical. A similarly coloured specimen, in the British Museum, was described and figured by Charles Hamilton Smith (1841:332, pl.25), recently reproduced in MacClintock (1981:38-39). Smith named the animal *Hippotragus isabellinus*. Roberts (1951:246) listed it as a synonym of *Equus quagga* adding that Levaillant's specimen was 'probably based on an immature animal, judging by its size; but much paler than the true Quagga and probably therefore from the lower Orange River area, where most mammals are very pale.' This procedure is followed by Meester et al. (1986:177).

29. Equus quagga Boddaert, 1785 — Quagga
(Perissodactyla: Equidae)

Drawings: GA 190, CT 108, UBL 203.
Localities: Gordon 11, 12, 14, 16, 32, 33, 39, 40, 47, 51, 81, 84, 85, 100, 101, 103, 104. Masson 14. Sparrman 15, 28, 33, 36, 38, 39, 45. Thunberg 34, 35. Paterson 17, 29, 42. Levaillant 54, 65. Herwaerden (2.6). Cruythoff (2.9). Cnoll (4.53). de la Caille (5.68). Swellengrebel (5.75). van Plettenberg (5.77). Hop (5.78). Wikar (5.79).
References: J.v.Herwaerden (v.1658, 2.6). Cruythoff (v.1661, 2.9). Herport 1669:15. Bolling 1678:23. Tachard 1686:42. de Chaumont 1686:5. Choisy 1687:80. Tappen (1704, 4.46). Leguat 1708,II:145. Cnoll (v.1710, 4.53). Bogaert 1711:104. Buttner (v.1713, 4.58). Kolb 1719:163. Valentijn 1723. De la Caille 1763:176. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). Hop (5.78). Hop 1778:41. Wikar (v.1778, 5.79). Mentzel 1787:391, 392.

Quagga and zebra were much confused by the early authors. The names were used without much knowledge about the actual distinction between them (Penzhorn 1969). The literature about the quagga, extinct since 1883 and hence only known from various historical sources, is already quite extensive, for instance Antonius (1931), van Bruggen (1959), Greig (1983a,b), von Lorenz (1902), Gall (1981), MacClintock (1981), Rau (1974, 1978, 1983), Tuijn (1966) etc. It is not my purpose to present a full review here which would take more space than is available.

Early drawings of the quagga with some semblance of scientific accuracy are very rare. The one of a young animal in the Gordon Atlas, GA 190, was discussed and figured by Tuijn (1966). On 13 May 1779 Gordon wrote to Fagel and he included a quagga drawing to be given to Allamand. The latter acknowledged receipt in Allamand (1781:14-15). Gordon drew a young quagga which he had caught alive, but he let it run away when he lacked enough milk. The drawing was copied for Allamand's plate. Levaillant's drawing CT 108 and UBL 203 is a nice one of an adult male. CT 108 was discussed and illustrated by Meester (1973:8) and again it was shown in Gall (1981, fig.3) and on the cover of *African Wildlife* vol.37 (4), 1983, the issue on the 'quagga centennial'.

A living quagga was caught by Gordon and presented by governor van Plettenberg to the menagerie of Willem V at the end of 1780. It may have been this specimen which was exchanged with the Schönbrunn gardens in Vienna in the 1780's, now preserved in the natural history museum of that place (see 7.9.2). Other specimens had been exhibited in The Hague in 1748-1749 (Vosmaer 1783a). One more quagga came from the Cape of Good Hope in 1784 to the menagerie in Versailles. After its death around 1798 its skin and skeleton were added to the collection of the natural history museum in Paris (Rau 1974:74).

Other quagga material still extant largely dates from the 19th century. Thunberg was unable to obtain one. In 1822 he was offered one by N.L.Burman in Holland (to be sent from the Cape), but the transaction did not succeed. Sparrman (1783:234) was able to bring the skin of a foetus to Stockholm, still preserved in the natural history museum of that place (number Mamm.Ex.14, see Rau 1974:76).

30. Procavia capensis (Pallas, 1766) Rock Dassie
(Hyracoidea: Procaviidae)

Drawings: GA 218, IPA 386.

Localities: Gordon 54, 66, 91. Sparrman 21. Thunberg 6, 17. Levaillant 47, 51. Cruythoff (2.9). O.Bergh (2.29). van der Stel (ch.3). De la Caille 1763.

References: Hondius 1652:24. P.Cruythoff (v.1662, 2.9). de Beaulieu 1664:8. Dapper 1668:641. Nieuhof 1682:9. O.Bergh (v.1682, 2.29). Ten Rhyne 1686:19. Ziegenbalg & Plütscho 1709:31. Bogaert 1711:104. Buttner (v.1713, 4.58). Kolb 1719:144, 159. Valentijn 1723. Schwarz 1751:30. De la Caille 1763:176.

There are few records of this species which is still common in suitable rocky places. Several specimens were sent to Europe. Thunberg (1788:188, 1811c:322) had one in Uppsala. Governor Ryk Tulbagh (1699-1771) sent one in spirits to the collection of Wilem V (Vosmaer 1767). Several others were kept alive in the menagerie Blauw-Jan in Amsterdam, some described and depicted by Vosmaer (1767, pl.3) and Allamand (1778:157, pl.65). The skin of one of these animals (not the one mentioned by Allamand) reached Vosmaer in The Hague, who gave it to Pallas. This led to the first naming of the rock dassie as *Cavia capensis* by Pallas (1766:30, pls. 3,4), who added a few remarks later (Pallas 1776:85, 86).

31. Orycteropus afer (Pallas, 1766) Aardvark (Antbear)
(Tubulidentata: Orycteropodidae)

Drawings: GA 215, 234, 235, 236.

Localities: Gordon 76. Levaillant 70.

References: Ten Rhyne 1686:19. Buttner (v.1713, 4.58). Kolb 1719:165. De la Caille 1763:292. Mentzel 1787:376.

The aardvark is still present throughout the Cape Province, but it was rarely noticed due to its nocturnal habits. Sparrman (1783:282) saw it in the Zwartland. Thunberg (1788:159) mentioned the holes of 'Myrmecophaga' near the Cape. Levaillant (1795,III:417) received a specimen while near the Orange River. He also mentioned the species in one of the very few mammalogical excursions in the *Oiseaux d'Afrique* (1806,IV:80, text to pl.186), the 'cochons de terre': 'Cet animal, très répandu dans certains cantons du Cap de Bonne Espérance, est un vrai tamanoir ou grand fourmillier, mais qui diffère totalement des espèces qu'on trouve dans le Nouveau Monde. M.Allaman a très-bien décrit cet animal.'

Gordon, in his Journal, only noted the aardvark's holes near the Aughrabies Falls. He examined the animal elsewhere, as shown by his drawings which include one of an aardvark foetus, drawn at the Cape on 16 August 1777. The collection of Gordon's Manuscripts (GM 16) includes a description in an unknown hand of a female 'Aardvarken' caught at Tijgerberg (33°52'S, 18°36'E) in November 1783. The dimensions given in this description are the same as those on GA 215, 234 and 236. This fact, together with similarities of the handwriting in the description and in the captions, suggest that these drawings were made by Gordon's anonymous correspondent.

The aardvark of the Cape of Good Hope was insufficiently known in Europe in the middle of the 18th century. Buffon (1768:74) doubted the reality of an ant-eater living at the Cape. Pallas (1766:64-65) had already described a foetus which had been sent (in 1765?) from the Cape to Willem V in The Hague, and he named it *Myrmecophaga afer* (Pallas 1766:65). He was uncertain if this animal was a true anteater like those in the Americas, or a different genus. Some years later, the Dutch anatomist Petrus Camper (1722-1789) sent a description and a drawing of a skull to Pallas, who published them in 1780 with the name *Myrmecophaga capensis* (see Visser 1985:50 about theoretical implications concerning Buffon's theory of faunistic difference between the old and new world). This is the first instance in which *M.capensis* was used, earlier than the reference in Meester et al. (1986:182), but it is not clear why Pallas changed the specific name. The skull studied by Camper may have been in his own private collection.

Gordon sent a skin of an aardvark to Allamand in Leiden, with some remarks, published in Allamand (1781:26-29, pl.11). The accompanying plate was drawn after the skin. This same specimen may have been the one recorded in the list of specimens transferred from the Leiden University to the RMNH in 1834 as '*Orycteropus capensis*'. Thunberg (1811c:301, 322) said that he only brought a skull to Uppsala. In 1822, he was offered a skin by Burman, but the transaction was not concluded.

The persistent use of *Myrmecophaga* by the early authors shows that they regarded the aardvark as a relative of the American ant-eaters (Edentata: Myrmecophagidae). Most doubt was based on Buffon's assertions. Gordon made a small contribution to this problem by stating (GA 235) that the aardvark lacked incisors but had molars in both jaws, unlike in the true anteaters. It must be assumed that Sparrman did not see the animal himself, because he (1783:282) referred it to the genus *Manis*, introduced by Linnaeus (1758:36) for an Asian species of pangolin.

32. Suidae (Artiodactyla) Wild Pigs

There are just two species of wild pigs known in southern Africa, the warthog (*Phacochoerus aethiopicus*) and the bushpig (*Potamochoerus porcus*). The early records are often insufficiently clear to differentiate the two species (Skead 1980:381). Maybe, Gordon is our best guide to the more scientific division made in the 18th century at the Cape. He distinguished, in his list of species (GM 16) and on drawings in the Gordon Atlas (GA 212-214):

1. 'bosvarken' (= bush pig), no incisors, found in the interior, living in holes;
2. 'wild varken' (= wild pig), with incisors, also seen near the Cape, mainly in bush along rivers.

The difference in the number of incisors and the usual habitat (Roberts 1951:266) suggest that Gordon's 'wild varken' is *Potamochoerus porcus*, and his 'bosvarken' is *Phacochoerus aethiopicus*. The drawings of the animals are less clear. GA 212 and GA 213 of the 'wilde varken' show a young female and baby which could belong to the bushpig. Gordon's depiction of a male 'bosvarken' (GA 214), however, introduces doubt again, because this animal appears much different from the male warthogs which I often saw on the East African plains. Following Gordon's distinction, I have assumed that the animal was in fact intended as a warthog.

While Gordon outlined the theoretical distinction, it helps little in practise. Sparrman (1783:414) synonymised 'bosch-

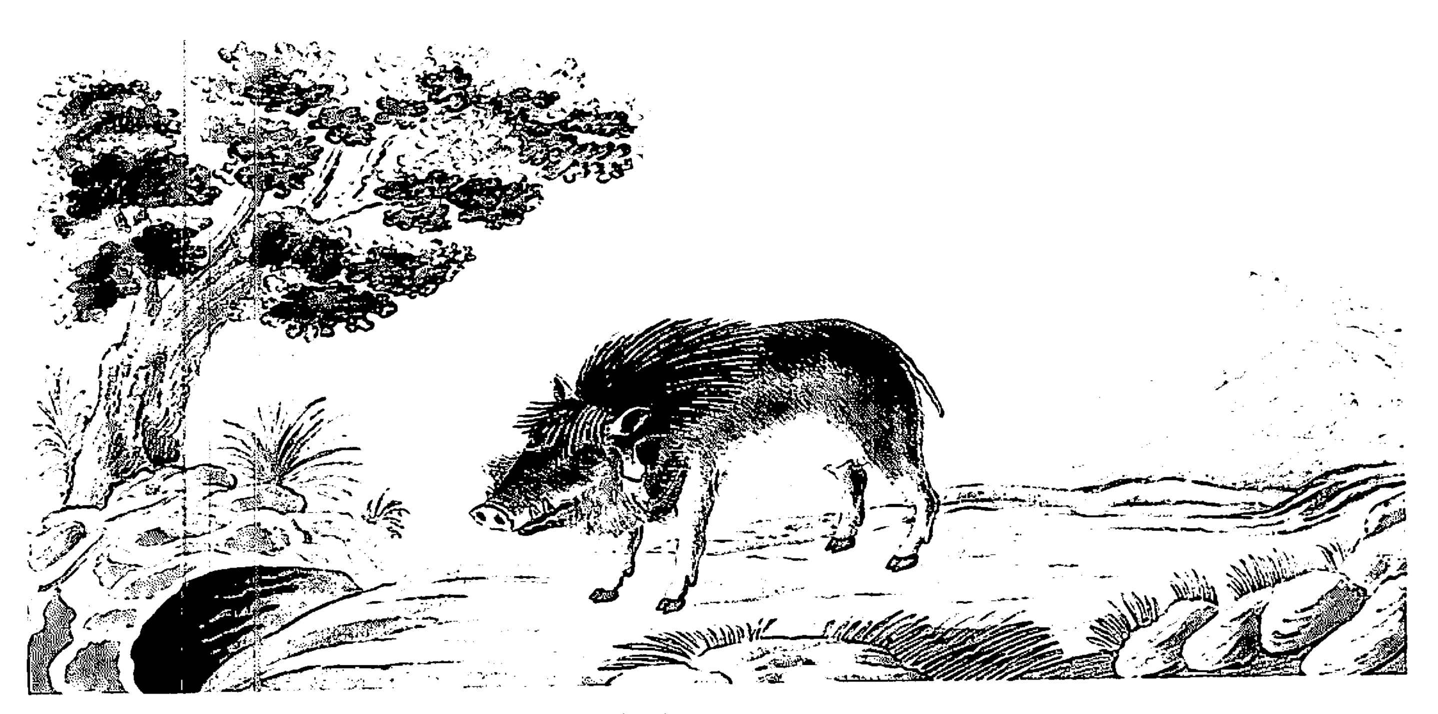


Fig. 141 Gordon Atlas (GA 214): Warthog *(Phacochoerus aethiopicus)*.

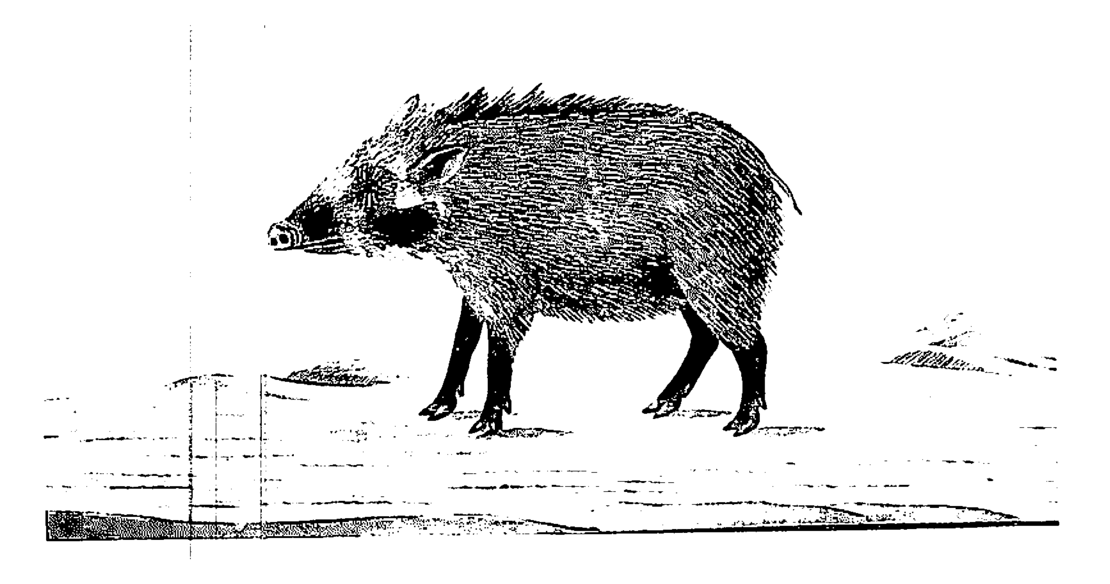


Fig. 142 Gordon Atlas (GA 212): Bushpig *(Potamochoerus porcus)*.

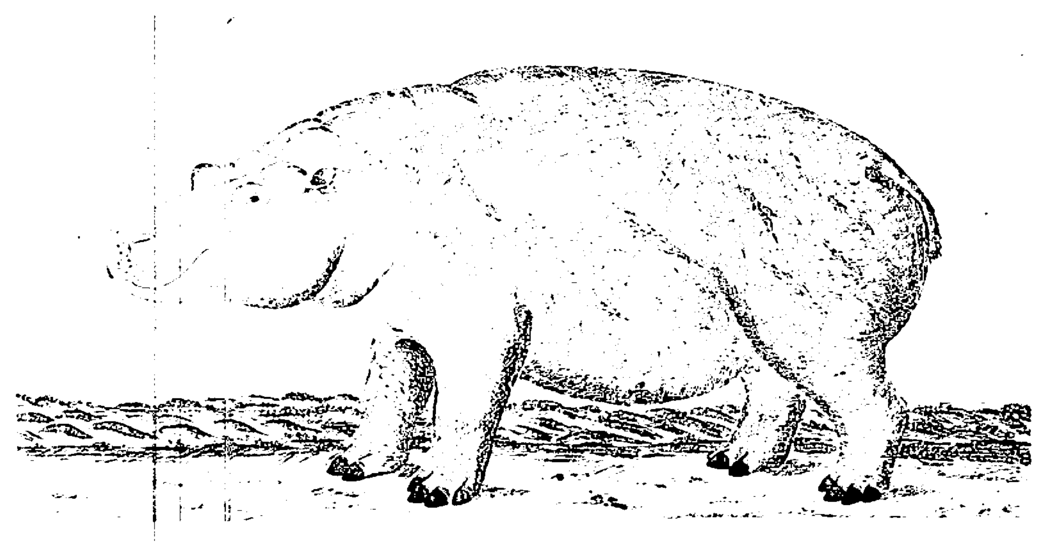
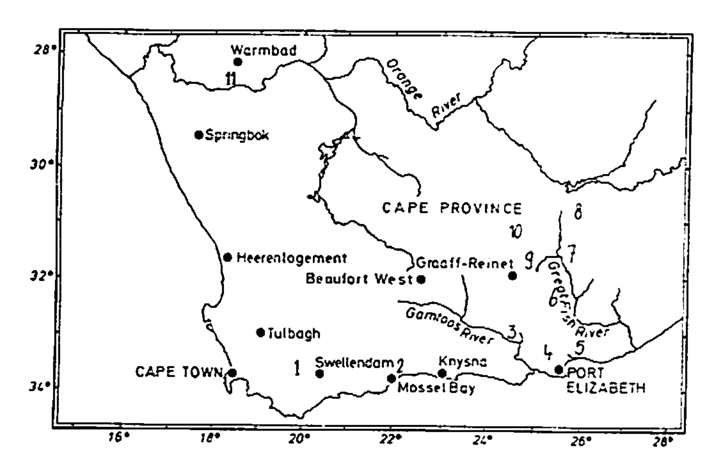
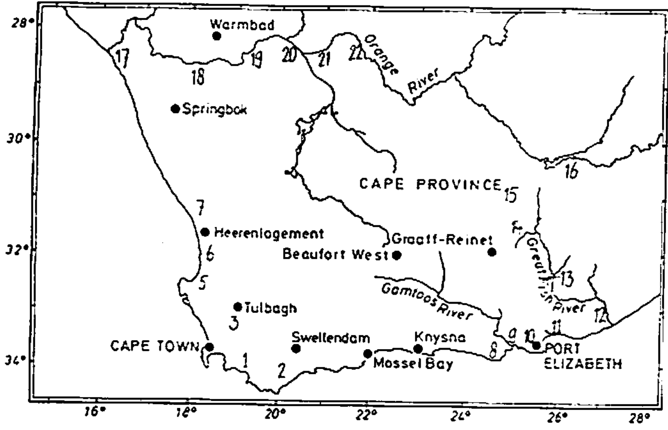


Fig. 143 Gordon Atlas (GA 198): Hippopotamus *(Hippopotamus amphibius)*.



Map 8. Suidae: records of distribution 1650-1790. Approximate localities are indicated by the numbers. I. Bushpig *(Potamochoerus porcus)*. 1. De Koo (Gordon 48). 2. Outeniqualand (Sparrman 17).
II. Warthog *(Phacochoerus aethiopicus)*. 3. Melk River (Swellengrebel 5.75). 4. Sunland (Sparrman 32). 5. Kommedagga (Sparrman 36). 6. Great Fish River (Gordon 22); Koks Kraal (Sparrman 41); Tarka River (Gordon 28). 7. Vlakpoort River (Gordon 24). 8. Steynsburg (Gordon 27). 9. Paardevlei (Gordon 41). 10. Hanover (Gordon 15); Plettenberg River (van Plettenberg 5.77). 11. North of Orange River (Levaillant 67).



Map 9. Hippopotamus *(Hippopotamus amphibius)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Sondereind River (Croese 2.18). 2. Avontuur (Gordon 6). 3. Grote Bergh River (Gabbema 2.5, Cruythoff 2.9); Kleine Bergh River (Cruythoff 2.9). 5. Grote Bergh River (Swellengrebel 5.75, Gordon 93, Levaillant 73). 6. Verlorevlei (Starrenburg 4.48). 7. Elephants River (Cruythoff 2.9). 8. Seacow River (Masson 10, Sparrman 26). 9. Gamtoos River (Gordon 34, Masson 11, Paterson 28, Sparrman 49, Thunberg 12). 10. Port Elizabeth (Gordon 33). 11. Sundays River (Paterson 31, Sparrman 46). 12. Great Fish River (Levaillant 23, Paterson 33). 13. Little Fish River (Sparrman 42, Swellengrebel 5.75); Great Fish River (Gordon 22); Koks Kraal (Levaillant 24, Sparrman 41). 14. Hanover (Gordon 15). 15. Seacow River (Gordon 16, 42); Plettenberg River (van Plettenberg 5.77). 16. Bethulie (Gordon 26). 17. Orange River mouth (Gordon 62, Paterson 42). 18. Goodhouse (Levaillant 60, 70, Paterson 21, 45, Hop 5.77). 19. Orange River (Gordon 71, 72, Wikar 5.78). 20. Aughrabies (Gordon 76, 77). 21. Orange River east of Kakamas (Gordon 78, 79). 22. Upington (Gordon 81, 82, 83).

varken' and 'wilde-varken' used for the warthog, while his 'berg-varken' (1783:282) can even less easily be assigned to one or the other. Thunberg (1811c:320) seemed to agree with Gordon in listing the warthog as '*Sus aethiopicus*' and the bushpig as '*Sus africanus*, wilde varken'.

33. Phacochoerus aethiopicus (Pallas, 1766) Warthog
(Artiodactyla: Suidae)

Drawings: CT 109, UBL 229, GA 214.
Localities: Gordon 15, 22, 24, 27, 28, 41. Sparrman 32, 36, 41. Levaillant 67. Swellengrebel (5.75). van Plettenberg (5,77).
References: de Flacourt 1658:378. P.Cruythoff (v.1661, 2.9). Schreyer 1681:82. de Lacombe (v.1680, 2.27). de Chaumont 1686:5. Ten Rhyne 1686:19. Choisy 1687:80. Schweitzer 1688:14. Meister 1692:244. Leguat 1708,II:145. Buttner (v.1713, 4.58). Vogel 1716:56. Kolb 1719:165. Schwarz 1751:30. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). Hop 1778:62-64. Mentzel 1787:400.

The warthog is no longer found in the Cape Province. Maybe it once lived even near the Cape (Skead 1980). Gordon and Sparrman only recorded it in the eastern Cape Province, while Levaillant (1795,III:251) claimed that he obtained a young specimen just north of the Orange River. This one was shown on the drawings CT 109 and UBL 229 with the same locality.

Sparrman (1977:29) gave a 'head of this animal, salted and dried' to the KVA in Stockholm. Allamand (1771:45-49) knew three specimens of the 'sanglier d'Afrique' in Holland, two of which had been exhibited alive in the menagerie of Willem V, one 1765-1766, the other came in 1770 and was alive in 1771. The first specimen sent from the Cape by governor Ryk Tulbagh in 1765, was described by Vosmaer (1766a) while it was still in the menagerie. It was also observed there by Pallas (1766:16-21) who named it *Aper aethiopicus*. The animal attacked one of the keepers, after which it was transferred to the menagerie 'Blauw-Jan' in Amsterdam (Pallas 1776:84) where it probably died some years later. It was drawn in The Hague by Aert Schouman whose work was used for the plates published by Vosmaer (1766a, pl.I), Pallas (1766, pl.II; 1767, pl.I) and Allamand (1771, pl.I) as discussed by Tuijn & van der Feen (1969:70, fig.1). On 13 August 1778, Pallas wrote a postcript to Pennant: 'The Aper aethiopicus had no more foreteeth when he was killed some Years after we saw him [in 1767]. Dr.Camper also writes to me that he got a large cranium of it from the Cape, which also wants the foreteeth' (Urness 1967:38).

34. Potamochoerus porcus (Linnaeus, 1758) Bush pig
(Artiodactyla: Suidae)

Drawings: GA 212, 213.
Localities: Gordon 48. Sparrman 17.

This animal was seldom noticed. Gordon only mentioned it once, in December 1778, at De Koo. Sparrman (1783:282) noted its presence in the Outeniqua forests without having seen it. No specimens were sent to Europe. Linnaeus (1758:50) knew his *Sus porcus* from West Africa.

35. Hippopotamus amphibius Linnaeus, 1758 Hippopotamus
subspecies: *H.a.capensis* Desmoulins, 1825.
(Artiodactyla: Hippopotamidae)

Drawings: GA 197-204, 209a,b, PA 18, 19, CT 99, 100, UBL 175, AM 4.
Localities: Gordon 6, 15, 16, 22, 26, 33, 34, 42, 62, 71, 72, 76, 77, 78, 79, 81, 82, 83, 93. Masson 6, 10, 11. Sparrman 26, 41, 42, 46, 49. Thunberg 12. Paterson 21, 28, 31, 33, 42, 45. Levaillant 23, 24, 60,

70, 73. Gabbema (2.5). Cruythoff (2.9). Croese (2.18). Starrenburg (4.48). Swellengrebel (5.75). van Plettenberg (5.77). Hop (5.78). Wikar (5.79).

References: A.Gabbema (v.1657, 2.5). de Flacourt 1658:378. P.Cruythoff (v.1661, 2.9). Dapper 1668:642. Herport 1669:16. Croese (1669, 2.18). Ogilby 1670:588). van Overbeke 1671:17. Bolling 1678:23. Schreyer 1681:80. de Lacombe (v.1680, 2.27). Nieuhof 1682:8. Tachard 1686:42. Ten Rhyne 1686:19. Schweitzer 1688:14. Meister 1692:244. J.Starrenburg (v.1705, 4.48). Maxwell 1707. Leguat 1708,II:145. Ziegenbalg & Plütscho 1709:31. Lockyer 1711:296. Bogaert 1711:104. Buttner (v.1713, 4.58). Beeckman 1718:180. Silleman & Thysz. 1718:14. Kolb 1719:167. Valentijn 1723. Barchewitz 1730:65. Coetsé (v.1760, 5.67). De la Caille 1763:162. Ekeberg 1773:55. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). Hop (5.78). Hop 1778:17-18. Wikar (v.1778, 5.79). Mentzel 1787:398.

Today the hippopotamus no longer occurs in the Cape Province. In the 18th century it was commonly seen in the larger rivers, especially in the eastern Cape Province (Gamtoos, Sundays, Great Fish rivers) and along the Orange River. It was no longer plentiful near the Cape, except perhaps in the Berg River, where it was often recorded.

The hippopotamus was well-known in Europe, partly from specimens from North Africa from where it was mentioned by Linnaeus (1758:74). Several early specimens were reported in European collections, but their origin is rarely documented. There was a stuffed skin in the collection of the Leiden University, listed in a catalogue of 1733 as 'un hippopotame, ou cheval de rivière, nommé par d'autres vaches de mer, donné par Monsieur le Bourgemaitre Brouwer, 1670'. It was described and illustrated by Allamand (1769,XII:28-29, pl.3), who said that it came from the Cape of Good Hope. Skins of a young and and adult hippopotamus were sent from the Cape between 1769 and 1776; they were mounted by J.C.Klöckner and added to the museum of Willem V in The Hague. They probably were transported to Paris in 1795, as listed by Thomas (1892:317): 'Hippopotame adulte et jeune.' These two specimens, described and illustrated by Allamand (1776:120-126) had been shot near the Sneeuwberg by Charles Marais 'un paisan, François d'origine.' Allamand added a few remarks about the animal's habits which he attributed to Gordon and which was probably based on information collected during Gordon's visit of 1773-1774. Thunberg (1811a) mentioned a hippopotamus in The Hague, but he doesn't say where he saw it. Thunberg (1811c:323) took a skull to Uppsala. Sparrman (1783:694) brought a skin of a young specimen and a tooth to Stockholm. This may have been the skin depicted on the plate accompanying his paper of 1778c and his book (1783, pl.VI).

Gordon made an extensive study of the hippopotamus. Some of his drawings were dated 20 November 1777. He examined morphological and anatomical details shown on the drawings. Paterson copied his hippopotamus drawings from Gordon. On 24 April 1779, Gordon wrote to Fagel that the drawings of the hippopotamus had been sent to Vosmaer to be included in the cabinet of Willem V. When Vosmaer died, 8 drawings representing the hippopotamus made by Gordon, were present in his legacy (Vosmaer 1800:267, see 7.9.4). At least another two drawings were given to Allamand in 1780 including some anatomical notes and sketches, published by Allamand (1781:1-8, pls.I-IV).

36. Giraffa camelopardalis (Linnaeus, 1758) Giraffe

South African subspecies: *G.c.capensis* (Lesson, 1842) (Artiodactyla: Giraffidae).

Drawings: GA 148-156, FC 15, 16, CT 86-90, UBL 189, Hunterian Drawings II 171.

Localities: Gordon 66, 69, 70, 71, 75, 76 , 78, 79, 80, 83, 85, 87. Paterson 23, 46. Levaillant 61, 62, 64, 65, 66, 68. De la Guerre (2.13). Coetsé (5.67). Wikar (5.79).

References: J.de la Guerre (v.1663, 2.13). Coetsé (v.1760, 5.67). Hop (5.78). Hop 1778:25, 27. Wikar (v.1778, 5.79). Mentzel 1787:380.

The evidence about the giraffes seen by Gordon and some of his contemporaries was discussed in Rookmaaker (1983a) illustrated with most of the relevant pictures. This information will only be summarised here. The giraffe no longer occurs in the Cape Province or in southern Namibia. The historical data could suggest that the distribution of the giraffe was limited in the south by the Orange River, but a few records from the N.W. Cape Province seem to contradict this.

Jacobus Coetsé (5.67) shot two giraffes and captured a young one after crossing the Orange River in 1760. The calf died after 2 weeks and Coetsé brought its remains to Cape Town. It was, strangely, not recorded what happened to this specimen. On the next expedition, Hendrik Hop and Carel F.Brink (5.78) shot a female giraffe near Warmbad in southern Namibia on 5 October 1761 and they captured a young one which lived for five days. On 16 October 1761 a male giraffe was shot in the same region. Only the skin of the young animal was preserved. Governor Ryk Tulbagh sent it to Holland where it was placed in the cabinet of the Leiden University. It was described and illustrated for the first time by Allamand (1770, XIII:17-19, pl.I). In the same year, Carteret (1770) published a letter written to the Royal Society in London on 20 April 1769 in which he mentioned the skin in Leiden and enclosed a depiction. Buffon (1776, Suppl.3: 320-330, pls. 64, 65) copied Allamand's note on the Leiden skin, but he was able to add to this account a new drawing of the skin in Leiden as well as another plate, copied from a drawing by C.F.Brink, brought to France by Louis de Bougainville. Buffon's plate of the skin again appeared in Hop (1778, facing p.30) and in Allamand (1778, pl.58).

A few remarks about these records may be added. It is likely that further drawings and specimens were available in Cape Town around 1765-1770. Carteret in 1769 and George Forster in 1772 or 1775 were able to copy drawings in the collection of (probably) the governor. Maybe these were made by Brink during the expedition, or they may have been prepared later from material brought to the Cape. Only one skin of a young animal went to Holland. Both Coetsé and Hop preserved one, hence the other is lost from the historical record. Parts of the other giraffes shot during these expeditions could also have been preserved and brought to Cape Town. One can also wonder about the long period which elapsed between the end of Hop's expedition (April 1762) and the first notice in Holland (Allamand in 1770).

The first plate in Buffon (1776, pl.64) – based on the Leiden skin – was copied by von Schreber (1784, pl.255) with the name '*Camelopardalis giraffa*'. Meester et al. (1986:188) place this name, with locality 'interior of Africa' in synonymy with the nominate *G.c.camelopardalis* of northern Africa, while using *G.c.capensis* (Lesson, 1842) for the southern subspecies. I would prefer to agree with Dagg (1971) in using von Schreber's *giraffa* for this southernmost subspecies, with the type locality 'Warmbad' (S.Namibia) restricted by Dagg (1971:1).

Other giraffe specimens were brought to the Cape in the

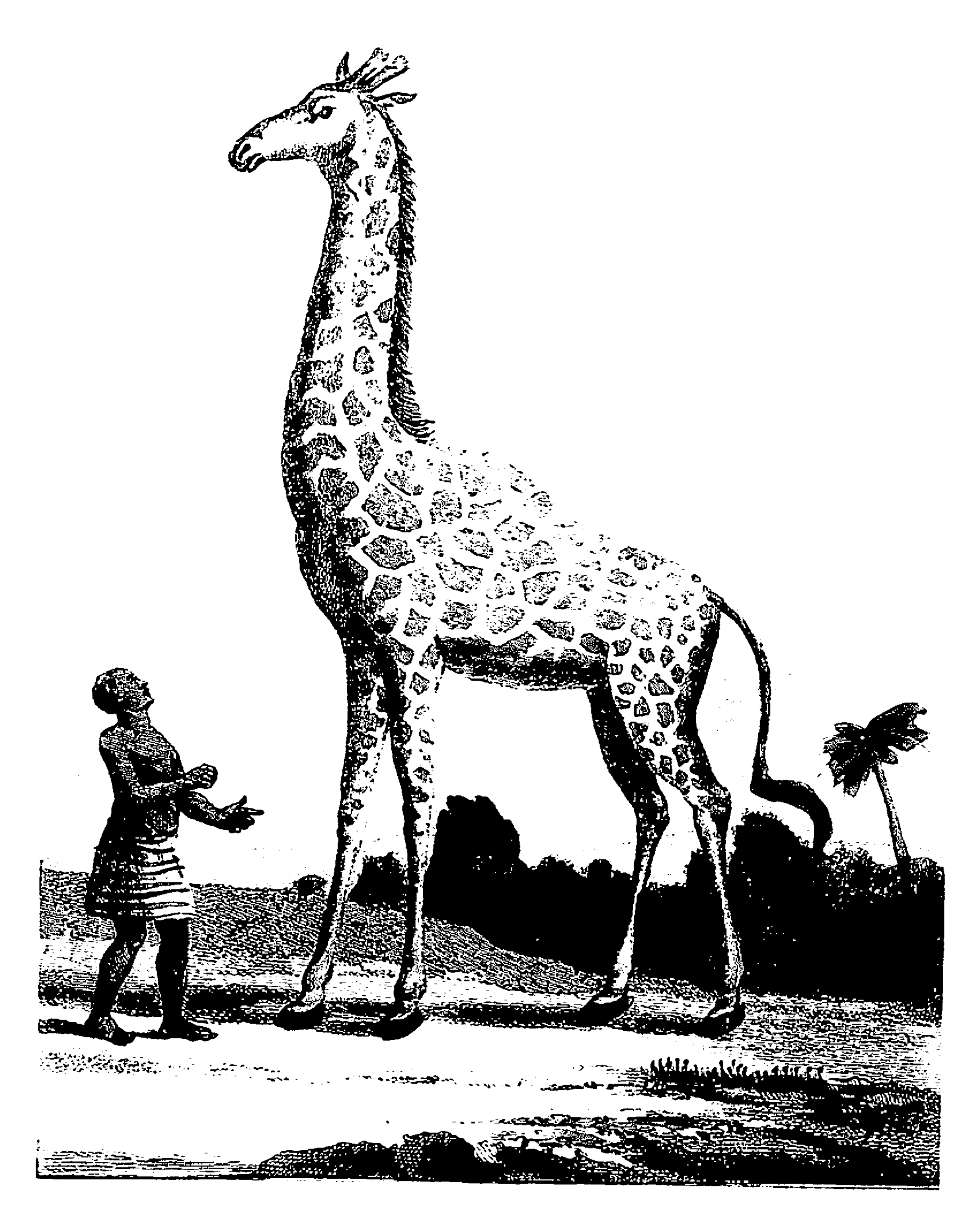
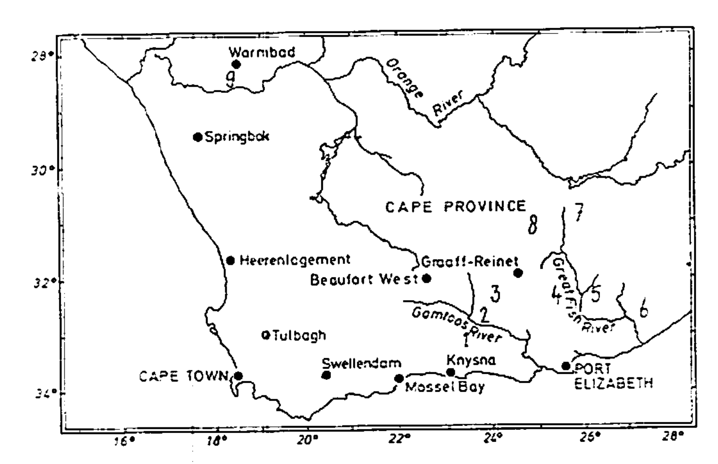


Fig. 144 Giraffe *(Giraffa camelopardalis)* published by A. Vosmaer (1787) after a specimen sent by Gordon to the collection of Willem V.

1770's and 1780's by Wikar, Paterson, Levaillant and Gordon. It is not recorded what happened to the one brought by Wikar. Paterson's specimen went to London where it was included in the collection of John Hunter. The skin was later discarded, the bones are still preserved in the Royal College of Surgeons of England (see 11.7). Levaillant shot his giraffe just north of the Orange River, and he was overjoyed: 'J'en allois enrichir l'histoire naturelle; j'en allois détruire des romans, et former, à mon tour, une vérité' (Levaillant 1795,II:301). Although there are no 18th century documents, it seems probable that Levaillant's giraffe went to the Muséum National d'Histoire Naturelle in Paris. It was first noted as such by Deleuze (1823:428): 'nous possédons le mâle depuis le voyage de M.Levaillant,' and again by Geoffroy-Saint Hilaire (1827) with a fuller description of the specimen.

Gordon saw giraffes on several occasions while travelling along the Orange River. On 12 October 1779, his companion Pieter Pienaar shot the first specimen, in a place on the south bank of the Orange River (locality 75). Gordon described, measured and drew the specimen, which was 15 feet 2 inches (Rijnlands) high. He cleaned the skeleton and buried the bones to be collected on his return, but the skin was not dried. When Gordon came back to this place on 20 November, many bones had been dug up by hyenas and he could only select some pieces. Gordon shot a second giraffe on 10 December 1779 north of the Orange River, a few hours walk south of Warmbad. It was an adult male, 15 feet 4 inches (Rijnlands) high. The skin and the skeleton were preserved. Some of these bones, of this or the first specimen, were shown on GA 154, 155, 156.

Gordon sent the hide and the skeleton of the second specimen



Map 10. Black wildebeest *(Connochaetes gnou)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Beervlei (Swellengrebel 5.75). 2. Kraai River (Swellengrebel 5.75); Karee River (van Plettenberg 5.77). 3. Aberdeen (Gordon 12); Camdeboo (van Plettenberg 5.77). 4. Great Fish River (Sparrman 38, 39, Levaillant 28). 5. Tarka River (Gordon 23); Vlakpoort River (Gordon 24). 6. Adelaide (Levaillant 27). 7. Steynsburg (Gordon 25, 26, 27). 8. Hanover (Gordon 15); Seacow River (Gordon 15); Plettenberg River (van Plettenberg 5.77); Sneeuwberg (Gordon 14); Paardevlei (Gordon 41).
Records of blue wildebeest *(Connochaetes taurinus)*: 9. Area north of Orange River (Gordon 80, Levaillant 63, 66).

to the cabinet of Willem V in Holland, where they were noted by Vosmaer (1787b). The skin probably was mounted, but it disappeared from the records. The skeleton too was mounted, by someone called Onymos, and later examined in detail by Petrus Camper (notes of 4 August 1786 published in Vosmaer 1787b:38-44), and depicted on a plate drawn by J.H.Merck and engraved by J.F.Grout. The skeleton was housed in the attic of the building of the cabinet in The Hague. It was seen there in 1790 by George Forster (1958:296). When the removal of the collection to Paris was contemplated, one of the inspectors, André Thouin, mentioned the giraffe skeleton in a letter of 22 February 1795 (Boyer 1971:393). In the report about its arrival in Paris (see 7.9.3), there is mention of 'deux peaux et un squelette de giraffe' (Anon. 1795).

Allamand in Leiden received some bones (probably those of the first one shot) from Gordon, accompanied by notes and drawings. Allamand (1781:49-60, pls. 19-20) wrote about this material with plates of the skin and skeleton similar to drawings now in the Gordon Atlas. Buffon (1789, suppl.7: 345-357, pls. 81, 82) reprinted this article, with the plates in reverse, but he modified the figure of the skeleton by adding a bony structure in front of the shoulderblade. The latter plate was copied by Levaillant (CT 89).

37. Connochaetes gnou (Zimmermann, 1780)
Black wildebeest

(Artiodactyla: Bovidae)
Drawings: FC 19, 19a, 20-28, B 59, GA 182, CT 84, UBL 98, KB 40.
Localities: Gordon 12, 14, 15, 16, 17, 23, 24, 25, 26, 27, 41. Sparrman 38, 39. Levaillant 27, 28. Swellengrebel (5.75). van Plettenberg (5.77).
References: Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.76). Hop 1778:53. Mentzel 1787:364, 383.

The black wildebeest was known in the eastern Cape Province. Records from southern Namibia have been referred to the blue wildebeest. Sparrman (1779b, pl.; 1783, pl.II(a)) was one of the first to describe the wildebeest in print. He had a mounted skin in Stockholm, from which the plate which accompanied his text must have been prepared. Thunberg (1811c:323, 1787:25) had a specimen of *Bos gnu* in Uppsala. He also mentioned that he saw one in The Hague, probably in the collection of Willem V (Thunberg 1811a). All drawings in the collections of Forster, Masson and Gordon clearly show the black wildebeest.

Wildebeests were kept in the menagerie in Cape Town, where they were seen by Joseph Banks and Daniel Solander in 1771 (see B 59) and by the Forsters in 1775 (see FC drawings). J.R.Forster gave a lengthy description of one of these specimens, which remained unpublished (see 6.4.5). Governor Van Plettenberg must have had several drawings of the wildebeest. Maybe one of these was similar to B 59. One was copied by George Forster (FC 19a) and also copies were sent to Holland (Allamand and Vosmaer).

When Allamand first received a drawing of the wildebeest in Holland, he did not believe that such an animal existed. However, Gordon told him in 1774 that he had in fact seen it. Gordon gave him a skin of the head and some particulars which Allamand (1776:113-116) used in his article on this species. Allamand here was the first to name the animal 'gnou' following assertions by Gordon (a name still used today, at least in Dutch). The menagerie of Willem V received two living wildebeests from the Cape, the first arriving on 14 June 1774, the second in 1776. Vosmaer (1784a) described these specimens. The first animal was drawn in the menagerie by Aert Schouman (Tuijn & van der Feen 1969:75, fig.14) and this drawing was copied for the engraving in Vosmaer (1784a, pl.18).

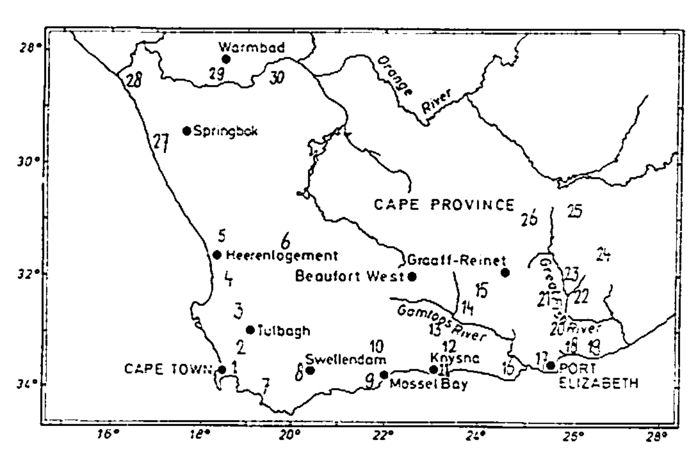
Zimmermann's first description and naming of *Bos gnou* in 1777 (work unavailable for nomenclature) was based on Allamand (1776) and his repetition of *Antilope gnou* in 1780 both on Allamand (1776) and Sparrman (1779b). No record is now available about the information which Gordon gave to Allamand in 1774 or where he saw the wildebeests. Due to this uncertainty, we may accept the restricted type locality 'Colesberg district' proposed by Harper (1940:329).

38. Connochaetes taurinus (Burchell, 18230)
Blue wildebeest

(Artiodactyla: Bovidae)
Localities: Gordon 80. Levaillant 63, 66.
References: Hop (5.78).

The blue wildebeest must have been the species recorded in the southern part of Namibia. No pictorial record is available, nor was the distinction between this species and *Connochaetes gnou* appreciated by the 18th century travellers.

39. Alcelaphus buselaphus (Pallas, 1766) Red hartebeest
subspecies: *A.b.camaa* (Cuvier, 1804).
(Artiodactyla: Bovidae)
Drawings: PA 24, GA 158, CT 76, UBL 14.
Localities: Gordon 7, 10, 11, 12, 15, 17, 21, 23, 24, 25, 27, 30, 31, 33, 37, 39, 41, 44, 58, 62, 96, 103, 104. Masson 12, 15. Sparrman 12, 17, 25, 28, 36, 38, 39, 41, 44, 45, 48, 49. Thunberg 21, 34, 35. Paterson 7, 29, 37, 42. Levaillant 5, 6, 14, 25, 44, 45. Cruythoff (2.9). Bergh (2.24). Cnoll (4.53). Swellengrebel (5.75). van Plettenberg (5.77). Hop (5.78). Wikar (5.79).
References: Hondius 1652:24. G.Heeck (v.1655, 2.4). de Flacourt 1658:378. P.Cruythoff (v.1661, 2.9). Merklein 1672:1094. P.van

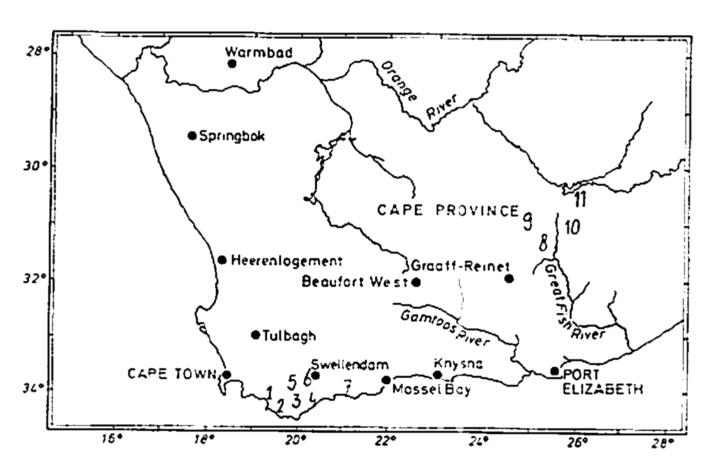


Map 11. Red hartebeest *(Alcelaphus buselaphus)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Tygerberg and Mosselbank River (Cruythoff 2.9). 2. Zwartland (Levaillant 44); Porterville (Levaillant 45); Mamre (Paterson 37); Groene Kloof (Thunberg 1, 21); Great Bergh River (Bergh 2.29); Dassenberg (Bergh 2.29, Swellengrebel 5.75); Riebeecks Casteel (Cruythoff 2.9). 3. Piketberg (Cruythoff 2.9). 4. Bergfontein (Bergh 2.29). 5. Elephants River (Cruythoff 2.9). 6. Draaikraal (Gordon 96). 7. Caledon (Levaillant 5, Sparrman 12, Cnoll 4.53); Soetemelksvlei (Levaillant 6); Palmiet River (Cnoll 4.53). 8. Swellendam (Gordon 7); Rietvallei (Paterson 7). 9. Outeniqualand (Sparrman 17); Gourits River (Swellengrebel 5.75). 10. Elephants River (Gordon 10). 11. Plettenberg Bay (Levaillant 14). 12. Lange Kloof (Gordon 37, Masson 15); Traka River (Gordon 39). 13. Beervlei (Gordon 11, Swellengrebel 5.75). 14. Kraai River (Swellengrebel 5.75). 15. Aberdeen (Gordon 12); Vrede (Gordon 44). 16. Gamtoos River (Masson 12, Sparrman 49); Tsitsikamma (Sparrman 25). 17. Port Elizabeth (Gordon 33); Witteklip (Paterson 29); Zwartkops River (Sparrman 28, Thunberg 35); Kraggakamma (Sparrman 48, Thunberg 34). 18. Coerney River (Gordon 31, 104); Kommedagga (Sparrman 36). 19. Bushmans River (Gordon 30, Sparrman 44); Boknes River (Gordon 103); Hassegai-Bosch (Sparrman 45). 20. Great Fish River (Gordon 21, Swellengrebel 5.75). 21. Somerset East (Sparrman 38, 39, Swellengrebel 5.75). 22. Tarka River (Gordon 23); Koks Kraal (Sparrman 41). 23. Somerset West (Levaillant 25). 24. Vlakpoort River (Gordon 24). 25. Steynsburg (Gordon 25, 27). 26. Hanover (Gordon 15); Paardevlei (Gordon 41); Plettenberg River (van Plettenberg 5.77). 27. Voorsigtigheidskloof (Gordon 58). 28. Orange River mouth (Gordon 62, Paterson 42). 29. Warmbad (Hop 5.77). 30. Orange River (Wikar 5.78).

Hoorn (v.1663, 2.12). Dapper 1668:641. Ogilby 1670:588. Schreyer 1681:81. Hoffmann 1680:33. de Lacombe (v.1680, 2.27). O.Bergh (v.1682, 2.29). Tachard 1686:42. de Chaumont 1686:5. Ten Rhyne 1686:19. Choisy 1687:80. Schweitzer 1688:14. Ovington 1696:488. Maxwell 1707. Leguat 1708,II:145. Ziegenbalg & Plütscho 1709:31. Cnoll (v.1710, 4.53). Bogaert 1711:104. Vogel 1716:56. Beeckman 1718:179. Silleman & Thysz. 1718:14. Kolb 1719:151. Valentijn 1723. Barchewitz 1730:65. Schwarz 1751:30. de la Caille 1763:252. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). Hop (5.78). Wikar (v.1778, 5.79). Mentzel 1787:385. von Wurmb & von Wollzogen 1794:86.

The hartebeest no longer occurs in the Cape Province. In the 18th century it was often recorded in the southern and eastern Cape Province. Apparently it was less abundant in the northwest, because there were only few records from Little Namaqualand. The drawings show that the animals belonged to the red hartebeest.

In Europe the hartebeest was known from northern Africa, from where it was described by Pallas (1766:7) as *Antilope*



Map 12. Bontebok and blesbok *(Damaliscus dorcas)*: records of distribution 1650-1790. Approximate localities are indicated by the numbers. I. Bontebok *(Damaliscus dorcas dorcas)*. 1. Caledon (Levaillant 5, Sparrman 12, Cnoll 4.53). 2. Palmiet River (Cnoll 4.53); Swarte River (Schryver 2.41). 3. Riviersonderend (Gordon 5, Paterson 11); Soetemelksvlei (Levaillant 6). 4. Buffeljagts River (Swellengrebel 5.75). 5. East of Caledon (Paterson 6). 6. Swellendam (Gordon 7, Thunberg 30); Rietvallei (Paterson 7). 7. Kafferkuils River (Masson 8).
II. Blesbok *(Damaliscus dorcas phillipsi)*. 8. Paardevlei (Gordon 41). 9. Hanover (Gordon 15); Seacow River (Gordon 16). 10. Steynsburg (Gordon 25, 27). 11. Bethulie (Gordon 26).

buselaphus, (1767a:10) as *Antilope bubalis*. Many early authors used the name given by Linnaeus (1758:69) as *Capra dorcas*, now referred to *Gazella dorcas*. Gordon sent some notes, a drawing of a male, and the skin of a female to Allamand, who published this information in 1781. Allamand's article mentioned, following Gordon on GA 158, the Hottentot name 'camaa'. This was the source for the *Antilope camaa* Cuvier, 1804.

40. Damaliscus dorcas (Pallas, 1766)

Two subspecies:

D.dorcas dorcas (Pallas, 1766)	Bontebok
D.dorcas phillipsi Harper, 1939	Blesbok

(Artiodactyla: Bovidae)

Drawings: GA 164, Africana Museum 72/1021.
Localities: Gordon 2, 5, 7, 15, 16, 25, 26, 27, 41. Masson 8. Sparrman 12. Thunberg 30. Paterson 5, 6, 7, 11. Levaillant 5, 6. Schryver (2.41). Cnoll (4.53). Swellengrebel (5.75).
References: Schreyer 1681:81. I.Schryver (v.1689, 2.41). Cnoll (v.1710, 4.53). Buttner (v.1713, 4.58). Kolb 1719:142. Swellengrebel (v.1776, 5.75). Mentzel 1787:366.

The nomenclature of the blesbok and bontebok has always suffered from confusion due partly to disagreements about the relationship between the two forms, partly to historical inconsistencies. The bontebok was first described by Pallas (1766:6) as *Antilope dorcas* based on 'skins' without locality. At that time, Pallas confused his specimens with the diagnosis of *Capra dorcas* by Linnaeus (1758:69) from 'Africa', now considered to be applicable to the dorcas gazelle, *Gazella dorcas*. In the next year, Pallas (1767a:10, 1767b:8) restricted the *Antilope dorcas* (Linnaeus) to the dorcas gazelle, while he named the bontebok *Antilope pygargus* or 'witgatje' in Dutch. This *A.pygargus* clearly was the bontebok. This can be summarized as follows:

Capra dorcas Linnaeus, 1758 = *Antilope dorcas* Pallas, 1767 = *Gazella dorcas* (Linnaeus, 1758).

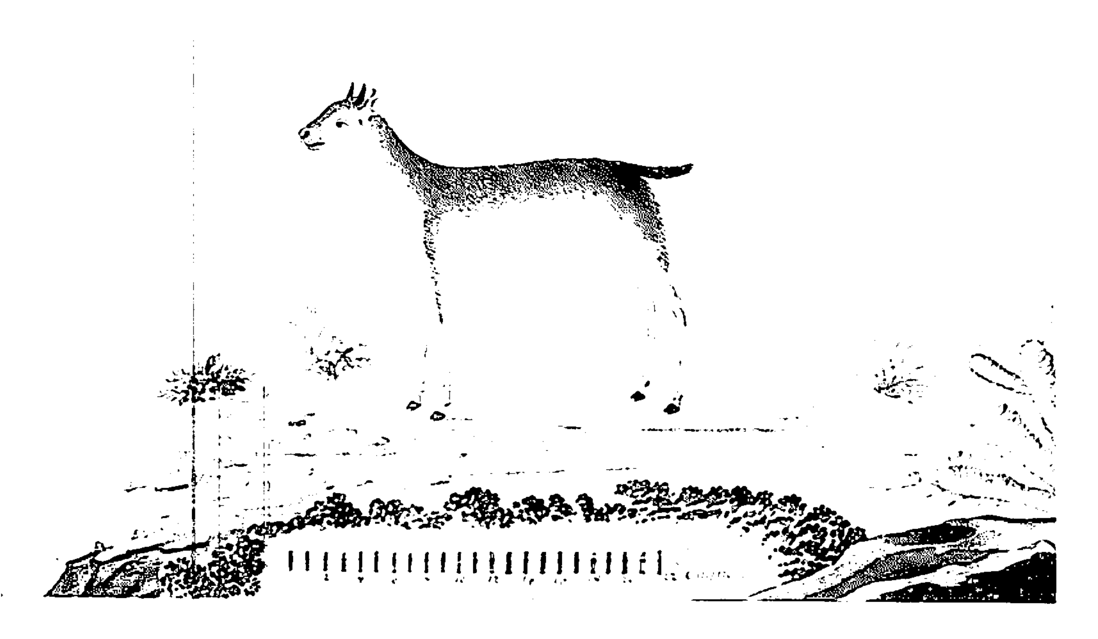


Fig. 145 Gordon Atlas (GA 180): Blue duiker *(Philantomba monticola)*.

Antilope dorcas Pallas, 1766 = *Antilope pygargus* Pallas, 1767 = *Damaliscus dorcas* (Pallas, 1766).

The two names in the last column represent the usual current interpretation. Harper (1940:328) stated that during the 19th century *Antilope dorcas* Pallas, 1766 was preoccupied by *Antilope* (= *Capra*) *dorcas* (Linnaeus, 1758) being secondary homonyms in the genus *Antilope*. As the two species were later transferred to different genera, Harper (l.c.) argued that 'the *dorcas* of Pallas [1766] becomes available again. ... and the combination to be used henceforth is *Damaliscus dorcas* (Pallas). *A.pygargus* becomes a synonym.' Within the guidelines of the current Code of Zoological Nomenclature (ICZN 1985), this procedure may not be quite correct. It may be suggested that Pallas in 1767 realised that his *Antilope dorcas* of 1766 and the *Capra dorcas* of Linnaeus were different species to be included in the same genus (i.e. that they were secondary homonyms), after which he replaced the junior one by the new name *Antilope pygargus*. According to the Code, article 59(b) 'a junior secondary homonym replaced before 1961 is permanently invalid.' There is no time limit to this action, hence *Antilope dorcas* Pallas may now be invalid, and the bontebok should be '*Damaliscus pygargus*' after all.

Pallas did not indicate where the specimens examined came from. The Cape of Good Hope was implied in 1767. Harper (1940:329) restricted the type locality of *Antilope dorcas* Pallas, 1766 to the 'Kaffir Kuils River in the Riversdale district' taken from Masson (1776, locality 8). Bigalke (1948) advocated a change, using *Damaliscus pygargus* (Pallas), to the Swart River 'not far from the present town of Caledon' based on the journal of Isaq Schryver of 11 January 1689 (see 2.41).

The distribution of the bontebok has always been very restricted (Bigalke 1955): 'the area to the east, west and north of Cape Agulhas bounded by Mossel Bay in the east, the Bot River in the west and the Sondereind and Langeberge mountains in the north.' It probably was rare to the east of Swellendam, as it was seldom recorded there. The blesbok was only noticed by Gordon in places in the north-eastern Cape Province between Middelburg and the Orange River. It probably never occurred further to the west.

Gordon drew the bontebok on GA 168. He did not copy it for Vosmaer or Allamand, but he sent a skin instead. It was described by Allamand (1781:38-40, pl.16) as the 'bontebok'. Maybe this same specimen was in the RMNH in 1834 transferred from the old Leiden University collection. Other specimens, however, were also available in Holland elsewhere (see Pallas). Thunberg (1811c:323, 1818b:30) had a skin in Uppsala.

41. **Philantomba monticola** (Thunberg, 1789) Blue Duiker (Artiodactyla: Bovidae)

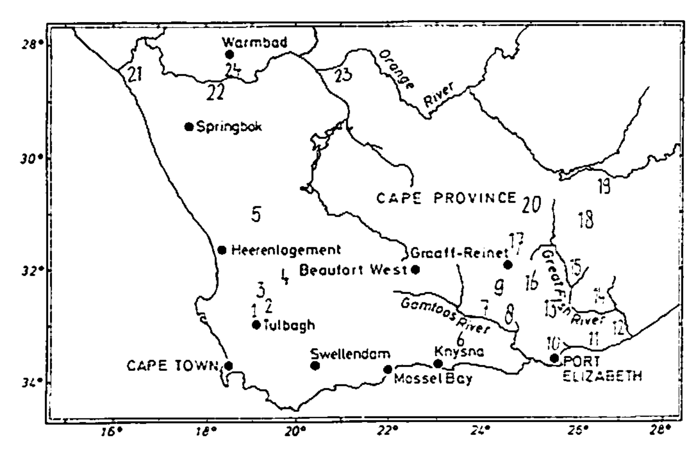
Drawings: GA 180, CT 185, UBL 140.
Localities: Sparrman 17, 25. Thunberg 32. Levaillant 8, 12, 26.

The small elusive blue duiker was rarely seen in the southern Cape Province. The most western record was by Levaillant (1790,I:71) of a small antelope at the Duiwenhoks River (c.20°57'E). The only specimen reported in Europe was the skin of a male which Thunberg had in Uppsala (1811c:323, 1818b:30). It is unknown when or how he obtained it. Thunberg's (1789:66) statement about this species in his travel account is controversial, and it may be given here:

Af en mycket liten och ganska fällynt båck, kallad Orebi (*Capra monticola*), fåg jag här en unge fangad, som var brun til färgen, föga större, än en katt, och ganska vacker. Den sades halla sig på fläta fältet uti Lange Kloof, och berättades, at intetdera könet skulle åga horn, ehuru det år troligt, at hanen åger dem.' (Translated in 1986:22, 'I saw the kid caught of a very small and extremely scarce buck, called orebi (*Capra monticola*). It was of a brown colour, scarcely larger than a cat, and very handsome. This animal was said to inhabit the plains in Lange Kloof, and it was asserted, that neither sex have horns, though it is highly probable that the male has.')

This description of 1789 was taken as the first referring to the blue duiker by Meester et al. (1986:196). There has been some controversy earlier about the accuracy of that viewpoint. Thunberg (1811a) later described the animal more fully after a skin of a male preserved at that time in the Uppsala Museum (see 10.6.2). In his revision, the same species is mentioned again (Thunberg 1811c:314-315):

41. *Antilope monticola*, Ourebi ab Hottentotis appelata, in Actis Holmensibus a memet nuper descripta et depicta fuit. Leporis magnitudine,



Map 13. Springbok *(Antidorcas marsupialis)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Elephants River (Bergh 2.29). 2. Bokkeveld (Levaillant 39, Gordon 51). 3. Bokkeveld (Masson 7, Thunberg 27). 4. Roggeveld (Thunberg 45). 5. Loerisfontein (Paterson 48). 6. Beervlei (Gordon 11, Swellengrebel 5.75, van Plettenberg 5.77); Kariga River (Swellengrebel 5.75); Lange Kloof (Masson 15). 7. Kraai River (Swellengrebel 5.75); Cambdeboos River (van Plettenberg 5.77). 8. Melk River (Swellengrebel 5.75). 9. Aberdeen (Gordon 12); Vrede (Gordon 13). 10. Paterson (Paterson 32). 11. Coerney (Gordon 104); Boknes River (Gordon 103); Bushmans River (Gordon 30). 12. Great Fish River (Levaillant 29). 13. Great Fish River (Gordon 21, 22, 29, Sparrman 38, Swellengrebel 5.75); Little Fish River (Levaillant 28, Sparrman 37); Tarka River (Gordon 23); Kommedagga (Sparrman 36). 14. Kakouri River (Swellengrebel 5.75); Adelaide (Levaillant 27). 15. Vlakpoort River (Gordon 24). 16. Vogel River (Levaillant 29). 17. Sneeuwberg (Gordon 14); Hanover (Gordon 15); Paardevlei (Gordon 41). 18. Steynsburg (Gordon 25, 27). 20. Seacow River (Gordon 16); Plettenberg River (van Plettenberg 5.77). 21. Orange River mouth (Gordon 62). 22. Goodhouse (Levaillant 60). 23. Upington (Gordon 81). 24. Warmbad (Levaillant 62, 63, 65).

19. Orange River (Gordon 26).

tota brunnea, linea frontali duplici et cornubus maris bipollicaribus, conicis, altero latere tantum annulatis. Femina inermis, cujus figura videatur apud Allamand T.5 T.12. Etiam in Guinea haec species fuit inventa a D. Afzelio.

Four points here may be underlined: (1) the vernacular name was 'ourebi', (2) the size is small like a hare, (3) the female lacks horns, (4) the figure referred to in Allamand depicted a female *Ourebia ourebi*.

Schwarz (1914a:35) used the name *Cephalophus caerulus* for the blue duiker with this reason: 'This specific name replaces *monticola*, which, as will be shown in a subsequent paper, is a clear synonym of *Ourebia ourebi*.' Later (1914b:492) he repeated this decision, but the subsequent discussion was not found. Schwarz was followed by Allen (1939:489) and some later authors. Skead (1980:444) agreed that the reference in Thunberg (1789) was to the ourebi, not to the blue duiker.

Thunberg obviously described and depicted a male blue duiker in 1811a, and this was the species then present in the Uppsala museum. We cannot be sure if this was the specimen recorded in the travel journal in 1789. It is clear that Thunberg was confused. He had not seen or recognised either the ourebi or the female blue duiker. This explains the inaccurate reference to the hornless female depicted on Allamand's plate and the wrong use of the vernacular name. Because the 'type-specimen' was a blue duiker, the correct name for that species must be *Antilope monticola* and this name can be dated to the 1789 reference. It was shown by Skead (1980:445) that the restricted type-locality following Roberts (1951:323) can be given as 'Thornhill, Port Elizabeth district, C.P.' (33°53'S, 25°9'E).

42. Sylvicapra grimmia (Linnaeus, 1758) Common duiker (Artiodactyla: Bovidae)

Drawings: GA 177, 178, PA 23, CT 91, 92, UBL 139.
Localities: Gordon 67. Sparrman 8. Thunberg 1, 21, 27. Levaillant 42, 44. Swellengrebel (5.75).
References: Buttner (v.1713, 4.58). Kolb 1719:170. Barchewitz 1730:65. Swellengrebel (v.1776, 5.75). Mentzel 1787:367.

The duiker was first described by H.N.Grimm (1686) from a specimen which he saw in the Fort in Cape Town, 'quam in Africa ad Caput Bonae Spei, in Castello vidi.' From this note, Linnaeus (1758:70) named *Capra grimmia* with locality 'Africa'. The duiker still occurs throughout southern Africa. It was seldom seen by the travellers because it is small and hides in the bush. The few available records were all located in the S.W. Cape Province.

No skins were taken to Europe, although Thunberg probably received one from the Cape (via Burman) in 1824. Thunberg (1811c:312) named the duiker *Antilope nictitans*, apparently because he thought that the 'grimme' came from West Africa. Gordon (GA 177), however, identified the duiker as the grimme. Among the Gordon Manuscripts (GM 16), there is an undated note in which Gordon distinguished two species of duiker, i.e. the 'kuifduiker' and the 'duiker':
kuifduiker: bigger, tufted, female has small horns; duiker: smaller, no tuft (or a small one), female never has horns.
This distinction is not repeated either in the Gordon Atlas (only the duiker is depicted) nor in Gordon's list of South African mammals. He may have changed his mind, or the note in GM 16 may have been a later development.

In this connection we can discuss the 'kuifduyker' illustrated by Levaillant on CT 92. Meester (1973:12) suggested that this drawing represented the red duiker, *Cephalophus natalensis* A.Smith, 1834. This identification was based both on the name and on the red colour of the body and the absence of dark striping on the anterior surface of the foreleg. Levaillant did not mention the 'kuifduyker' in his travel account. The red duiker is not now known to occur anywhere near the eastern Cape Province where Levaillant could have seen it. A reduction in range cannot be ruled out, although one would not expect this in an inconspicuous animal like the red duiker. I tentatively suggest, therefore, that Gordon and Levaillant could not have seen the red duiker and that the animal depicted on CT 92 represents a common duiker. Gordon's distinction may be attributed to individual variation.

Two West African specimens of the common duiker were exhibited in the menagerie of Willem V in 1764; one died that year, the other survived at least until 1766 (Vosmaer 1766b). The surviving animal was drawn in 1765 by Aert Schouman (drawing present in the Rijksprentenkabinet, Amsterdam) from which several plates were copied (see Tuijn & van der Feen 1969:71). Forster (1782:174) referred to the same specimen and added some particulars about the duiker of the Cape of Good Hope. Apparently, George Forster did not prepare a drawing.

43. Antidorcas marsupialis (Zimmermann, 1780) Springbok (Artiodactyla: Bovidae)

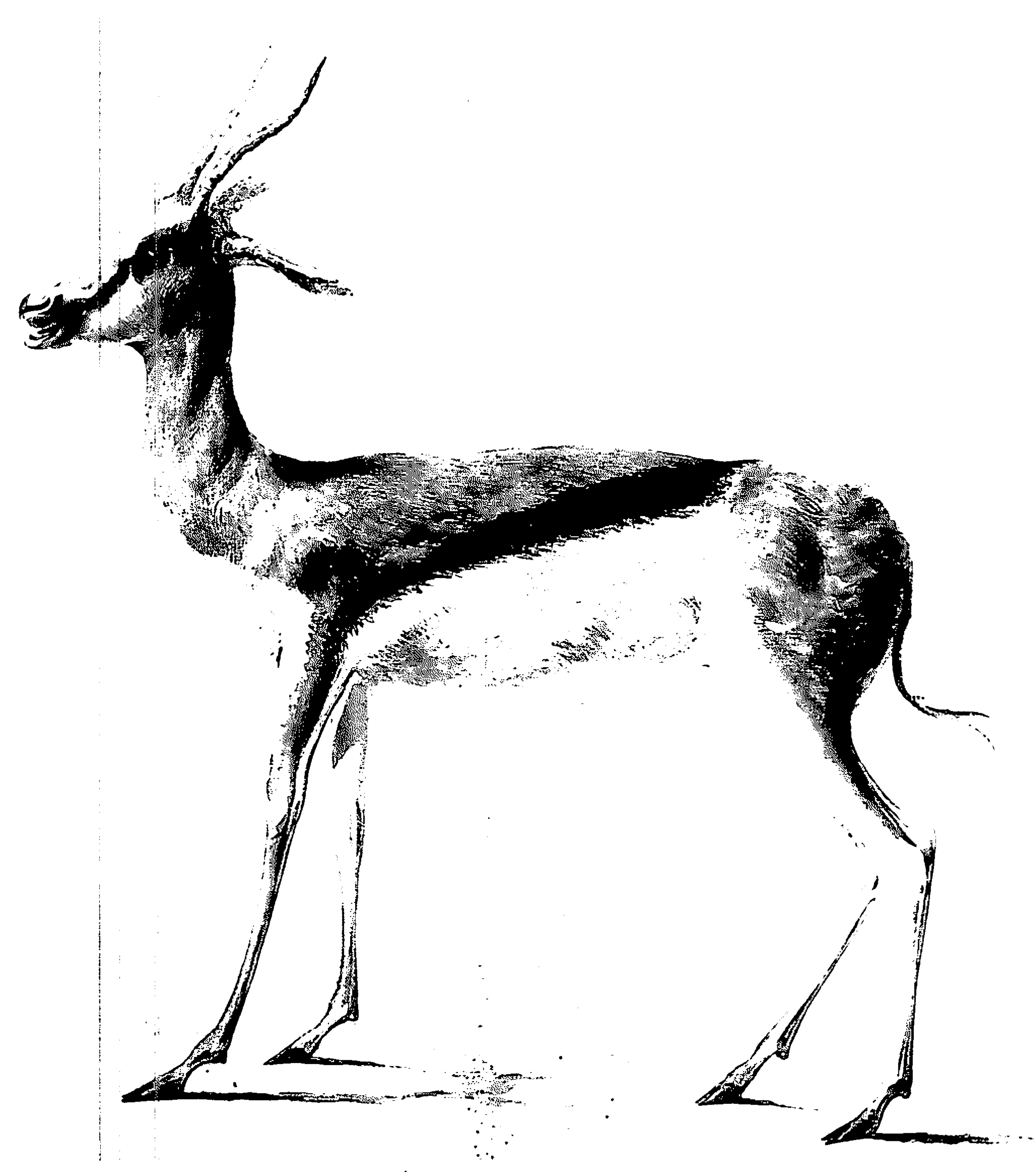


Fig. 146 Springbok *(Antidorcas marsupialis)* drawn by A. Birnie in 1778. /F

Drawings: FG 1, FC 18a,b, B 51, PA 21, 22, GA 166, CT 102, 103, UBL 238, 239, Swellengrebel SP 40, 41, van der Stel IPA 423, drawings by F.Birnie.(figs 146, 147)
Localities: Gordon 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 29, 30, 41, 44, 51, 62, 81, 103, 104. Masson 9, 15. Sparrman 36, 37, 38. Thunberg 27, 45. Paterson 32, 48. Levaillant 20, 23, 27, 28, 29, 39, 60, 62, 63, 65. O.Bergh (2.29). Swellengrebel (5.75). van Plettenberg (5.77). /7
References: O.Bergh (v.1682, 2.29). Ten Rhyne 1686:19. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). Mentzel 1787:368, 405.

The springbok has now disappeared from the Cape Province. It was well-known to the people at the Cape who often saw them in enormous herds numbering several thousands of animals. The species was never recorded in the vicinity of the Cape Peninsula, while reports generally from the southern Cape Province were quite rare (Skead 1980). The place nearest to the map 13



Fig. 147 Springbok *(Antidorcas marsupialis)* by A. Birnie, 1778.

Cape where it was seen with some frequency was the Koud Bokkeveld north of Tulbagh. There were a few reports in the area around the Orange River. The springbok was often seen in the eastern Cape Province.

The first springbok known in Europe was the one brought alive to Holland by Gordon in 1774. It lived in Willem V's menagerie at The Loo from 30 July 1774 until August or September 1777 (see 7.2). This specimen was first described and depicted by Allamand (1778:142-143, pl.60), later followed by Vosmaer (1784b, pl.19). The description of *Antilope marsupialis* by Zimmermann (1780:427) was based on the article of Allamand.

Both Thunberg and Sparrman brought a skin to Sweden. A second living springbok was taken to England by J.R.Forster, who gave it to the Queen of England on 21 August 1775 and it lived until 1777. It delivered a stillborn baby. Possibly this female was depicted on George Forster's drawings and described in Forster (1782:177-179, pl.21). There are two inter-

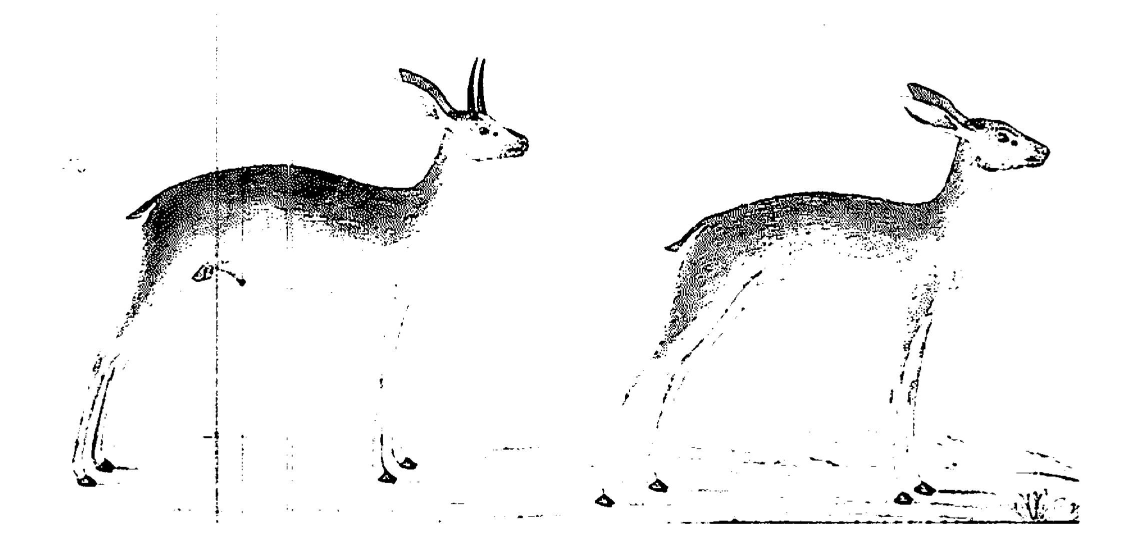


Fig. 148 Gordon Atlas (GA 171): Steenbok *(Raphicerus campestris)*.

esting drawings of a mounted springbok skin signed 'Fred.Birnie, Dec.4, 1778' (kept in the Hunterian Museum, Glasgow: Hunter Figures HF 184). I have been unable to find further data about the artist. One could assume, however, that the drawings were made after a specimen in the collection of William Hunter in London – and it could have been the one which was brought by Forster, mounted after its death.

44. Oreotragus oreotragus (Zimmermann, 1783) Klipspringer
(Artiodactyla: Bovidae)

Drawings: FC 29, GA 175, 176, CT 95, UBL 174.
Localities: Gordon 4, 99. Sparrman 8. Paterson 10. Levaillant 42, 51. van der Stel (ch.3).
References: Schreyer 1681:81. Buttner (v.1713, 4.58). Ekeberg 1773:53. Mentzel 1787:402.

The klipspringer occurred in suitable rocky places in many parts of the Cape Province, where it is still found today. It was rarely mentioned, usually in the S.W. Cape Province. Neither Thunberg nor Sparrman had a specimen. A dead animal (seen in Cape Town) was drawn by George Forster. This drawing was engraved and used to illustrate Forster's contribution to Buffon (1782:183, pl.22). Later the same plate (reversed) was included in Forster's translation of Levaillant's travels (Forster 1796, facing p.264). Forster (1782) was the basis of Zimmermann's description of *Antilope oreotragus* in 1783.

45. Ourebia ourebi (Zimmermann, 1783) Oribi
(Artiodactyla: Bovidae)

Drawings: GA 169, 170.
Localities: Gordon 18, 23, 28, 36, 37.

Gordon was the first to observe and distinguish the oribi. He only found it far away from the Cape, mostly in the eastern Cape Province. His most western records were in February 1778 near the Krom River (locality 36) and in the eastern part of the Lange Kloof (locality 37). Gordon sent some notes, maybe a drawing, and the skin of a (hornless) female to Allamand in Leiden. Allamand (1781:33) repeated Gordon's information and added a plate which resembles GA 170. The article by Allamand was the basis of Zimmermann's *Antilope ourebi* of 1783. It is not known on which grounds Roberts (1951:337) restricted the type locality to the Uitenhage district. Gordon did not see it in that particular area.

Thunberg probably did not know the oribi. In his paper of 1811a he mentioned (without name) the 'ourebi' as described by Allamand (1781). Thunberg (1811c:314-315) referred that article and the name 'ourebi' to his *Antilope monticola*, now supposed to indicate the blue duiker. Thunberg obviously confused the two species. It is therefore, impossible to ascertain which animal he saw in the Lange Kloof, but in view of the nomenclatorial implications that passage was referred to the blue duiker (see above).

46. Raphicerus campestris (Thunberg, 1811) Steenbok
(Artiodactyla: Bovidae)

Drawings: GA 171, 172, FC 17, CT 94, UBL 137.
Localities: Gordon 9, 16, 23, 29, 60, 65, 68. Masson 1, 3. Sparrman 8, 13. Thunberg 1, 21, 27. Paterson 37. Levaillant 1, 44, 49. Cruythoff (2.9). Swellengrebel (5.75).
References: Hondius 1652:24. P.Cruythoff (v.1661, 2.9). P.van Hoorn (v.1663, 2.12). Dapper 1668:641. Herport 1669:15. Andersen 1669:4. Schouten 1676:8. Schreyer 1681:81. Hoffmann 1680:33. de Lacombe (v.1680, 2.27). Nieuhof 1682:8. van Reede (v.1685, 2.30). Ten Rhyne 1686:19. Bogaert 1711:104. Buttner (v.1713, 4.58). Vogel 1716:56. Kolb 1719:166. Valentijn 1723. Barchewitz 1730:65. de la Caille 1763:292. Swellengrebel (v.1776, 5.75). Mentzel 1787:367.

The steenbok occurs throughout the Cape Province. It was often recorded in the S.W. Cape Province and Gordon saw it in the eastern Cape Province and in various places in Little Namaqualand. Apparently, no specimens reached Europe in the 18th century. Thunberg did not have one in 1811, but he received the skin of a steenbok in 1824 through the help of Burman. The species was described by Forster (1782:185-186) differentiating the 'steenbock', 'grysbock' and 'b[l]eekbock' (the bleekbok now considered conspecific with the steenbok). Forster also gave binominal names to these varieties, not only in his *Descriptiones Animalium* first published in 1844, but also in notes added to his translations of Levaillant. Rookmaaker (1988c) shows that the '*Antelope dama* var.*rupestris*' Forster 1796:160 may be considered a *nomen nudum*. Forster (1782:185, 1844:36) mentioned the existence of a drawing by his son, but this may refer to the one of *R.melanotis*.



Fig. 149 Gordon Atlas (GA 179): Grysbok *(Raphicerus melanotis)*.

47. Raphicerus melanotis (Thunberg, 1811) Grysbok
(Artiodactyla: Bovidae)

Drawings: FC 17, GA 179, CT 93, UBL 138.
Localities: Sparrman 17. Levaillant 42, 44.
References: Kolb 1719:151. Mentzel 1787:366.

The grysbok occurs in the southern Cape Province. It was rarely mentioned in the 18th century, with only a few records from the S.W.Cape Province. As noted by Rookmaaker (1988c), the grysbok was first named by J.R.Forster (1790b:21) as *Antelope melanotis*, and (1796:132) as *A. grisea*, both considered *nomina nuda*. Thunberg may have known these descriptions because he used the name *melanotis* in his first proper description of the species in 1811. There is a skull of *R.melanotis* in Uppsala, supposed to be the type specimen examined by Thunberg. This may not be strictly accurate. Thunberg (1811c) did not record the availability of a specimen in Uppsala. He received one later, in 1824, through the help of Burman, from the Cape of Good Hope.

48. Pelea capreolus (Forster, 1790) Grey Rhebock
(Artiodactyla: Bovidae)

Drawings: GA 173, 174, CT 75, UBL 12.
Localities: Gordon 5, 11, 37, 82, 92. Masson 2. Thunberg 20, 29. Levaillant 5,49. Cnoll (4.53). Swellengrebel (5.75). van Plettenberg (5.77).
References:Hondius 1652:24. de Flacourt 1658:378. Dapper 1668:641. Ogilby 1670:588. Schouten 1676:8. Schreyer 1681:81. de Lacombe (v.1680, 2.27). Nieuhof 1682:9. Tachard 1686:42. de Chaumont 1686:5. Masurier (v.1687, 2.38). de Rennefort 1688:218. Leguat 1708,II:145. Cnoll (v.1710, 4.53). Bogaert 1711:104. Buttner (v.1713, 4.58). Vogel 1716:56. Kolb 1719:164. Valentijn 1723. de la Caille 1763:292. Swellengrebel (v.1776, 5.75). van Plettenberg (v.1778, 5.77). von Wurmb & von Wollzogen 1794:86.

The grey rhebock was seen in the southern and south-western Cape Province. Gordon once recorded it in the northern Cape Province at the Orange River (locality 92). Few records or specimens came to Europe. J.R.Forster did not mention the species in his *Descriptiones Animalium* written around 1775, but when he found the rhebock mentioned in Levaillant's account, he added the name *Antelope capreolus* (Forster 1790b:71). It may be noted that a few pages earlier he called it *Antelope cervicapra*, which name is preoccupied. Levaillant saw the specimen in Ouwe-Hoeck (= Houhoek, 34°12'S, 19°10'E) which was given as the type locality by Skead (1973:79).

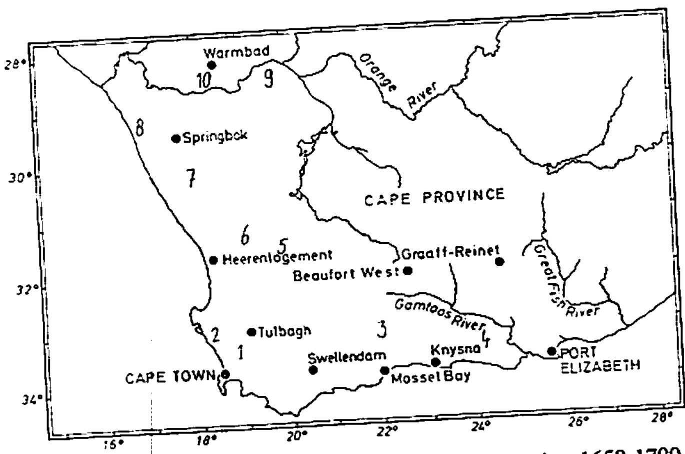
49. Hippotragus leucophaeus (Pallas, 1766) Bluebock
(Artiodactyla: Bovidae)

Drawings: GA 159, CT 77, UBL 13.
Localities: Thunberg 36. Levaillant 6.
References: Schreyer 1681:81. Buttner (v.1713, 4.58). Kolb 1719:141. Hop 1778:59. Mentzel 1787:366, 406.

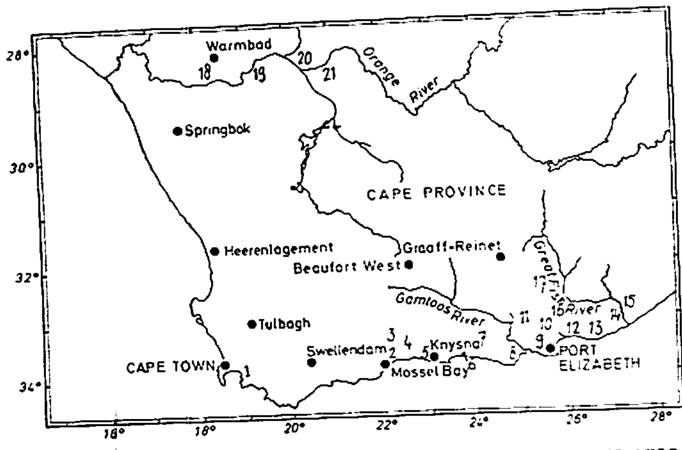
Mohr (1967) discussed most available information about the extinct bluebock. The animal's range apparently always was restricted to the region between Caledon and Swellendam in the S.W. Cape Province.

Thunberg had a specimen in Uppsala (Thunberg 1787:25, 1811c:323). He did not bring it himself from the Cape, but it was later sent by D.F.Immelman as was mentioned in his letter to Thunberg of 25 March 1781 (see 10.9). This skin was still present in 1846, but at present only a pair of horns remains (Mohr 1967:42, fig.22). Another mounted bluebock is in the natural history museum in Stockholm where it was transferred to from the collection of A.U.Grill in 1829 (Mohr 1967:29). It is unlikely that it was brought home by Sparrman because there is no evidence to that effect.

Husson & Holthuis (1969) gave the history of the mounted bluebock in the RMNH, Leiden. The specimen was bought in a shop (in Amsterdam) by J.C.Klöckner before 1776. He mounted it and sold or gave it to J.C.Sylvius van Lennep in Haarlem, whose collection after his death on 17 December 1776 was bequeathed to the Hollandsche Maatschappij der Wetenschappen in the same place (Tuijn 1971:177). The bluebock was seen there around 1800 by Rudolphi (1804:120). Several animals from the Haarlem museum were auctioned on 15 April 1842, at which time the bluebock was bought by H.Schlegel for the RMNH. Husson & Holthuis (1969:153)



Map 14. Gemsbok *(Oryx gazella)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Zwartland (Levaillant 44); Porterville (Levaillant 45). 2. Great Bergh River (Swellengrebel 5.75). 3. Queekvalley (Gordon 98). 4. Beervlei (Gordon 11); Traka River (Gordon 39). 5. Draaikraal (Gordon 96). 6. Swellengrebelfontein (Paterson 19). 7. Ellenboogfontein (Levaillant 54). 8. Voorsigtigheidskloof (Gordon 58); Port Nolloth (Gordon 60); Holgat River (Gordon 61); MacDougal Bay (Paterson 41). 9. Orange River (Gordon 71, 76, Wikar 5.78). 10. Warmbad (Hop 5.77).



Map 15. Buffalo *(Syncerus caffer)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Cape Hangklip (Gordon 4, Paterson 4). 2. Outeniqualand (Sparrman 17). 3. Elephants River (Gordon 10). 4. Outeniqua Mountains (Masson 9). 5. Swart River (Levaillant 13); Koukuma River (Thunberg 7). 6. Plettenberg Bay (Gordon 38, Levaillant 14, Thunberg 9). 7. Lange Kloof (Gordon 37). 8. Gamtoos River (Levaillant 16, Masson 11, Paterson 28); Krom River (Gordon 36); Tsitsikamma (Sparrman 25). 9. Port Elizabeth (Gordon 33, Masson 13); Coega River (Levaillant 19, Paterson 30, Sparrman 47); Zwartkops River (Thunberg 35, Sparrman 28); Kraggakamma (Sparrman 48, Thunberg 34); Galgebosch (Sparrman 27); Paterson (Paterson 32); Algoa Bay (Swellengrebel 5.75). 10. Bosch River (Swellengrebel 5.75). 11. Melk River (Swellengrebel 5.75). 12. Coerney River (Gordon 31, Swellengrebel 5.75); Sunland (Sparrman 32); Little Sundays River (Sparrman 33). 13. Bushmans River (Sparrman 34, 44); Boknes River (Gordon 103). 14. Great Fish River (Paterson 33, 35). 15. Cafferland (Paterson 34). 16. Kommedagga (Sparrman 36, 43); Great Fish River (Paterson 36). 17. Somerset East (Gordon 19, 29); Koks Kraal (Sparrman 41). 18. Warmbad (Levaillant 62, 64, 66, Hop 5.77). 19. Haris (Wikar 5.78). 20. Orange River (Gordon 78). 21. Upington (Gordon 81); Orange River (Wikar 5.78).

point out that none of the available evidence contradicts the possibility that the specimen now in Leiden was among the 'plurimas ... pelles' seen by Pallas and used in his description of *Antilope leucophaea* (Pallas 1766:4). They selected the Leiden specimen as the lectotype.

The early history of the mounted bluebock in the MNHN in Paris is not known. The label attributing it to 'Delegorgue. Afrique australe' must be incorrect, because Delegorgue travelled in South Africa in 1838-1844, when the bluebock was no longer extant. It has often been assumed (e.g. Bryden 1899:418, Renshaw 1921:25, Berlioz 1959:300) that it was collected by Levaillant. This could have been the case, but there appears to be no evidence to that effect. Mohr (1967:38-40) noted a great similarity between the mounted skin in Paris and the animal shown on GA 159. Gordon in fact sent a specimen of the bluebock to Holland, around 1780, as noted by Allamand (1781:38) in a footnote: 'M.Gordon m'a envoié les peaux' of the 'pasan' (= gemsbok) and the 'tzeiran' (= bluebock) 'qu'il a tués au Cap de Bonne Espérance.' The skin was sent to Allamand in Leiden, not to Vosmaer in The Hague. However, the distribution of Gordon's specimens between the collections in Leiden and The Hague is not always clear from the few available documents. It might be that Gordon's bluebock in fact was exhibited in the collection of Willem V, from where it was transferred to Paris in 1795 (assumed by Harris 1840).

50. Hippotragus equinus (Desmarest, 1804) Roan antelope

(Artiodactyla: Bovidae)

Drawings: GA 160, 161, Africana Museum 61/1248.

The roan has not been found south of the Orange River. One can only share Gordon's amazement of obtaining a skin of this (then unknown) antelope near Plettenberg Bay in 1778 (GA 160). It may be mentioned that the incident was not recorded in Gordon's Journal. However, Gordon certainly had a skin of the roan, depicted on GA 161 and sent to the cabinet of Willem V in 1779 (where it remained unrecognised). Gordon's drawing GA 160 of the roan and that of the 'blauwe bok' in the Africana Museum (61/1248) are very similar except in details (not reversed). One obviously was copied from the other, but it cannot be said which one was first. It is remarkable, of course, that the animal of the Africana Museum drawing is called 'blauwe bok' (blue bock) and that it is, at the same time, a clear blue colour (not seen in GA 160).

51. Oryx gazella (Linnaeus, 1758) Gemsbok

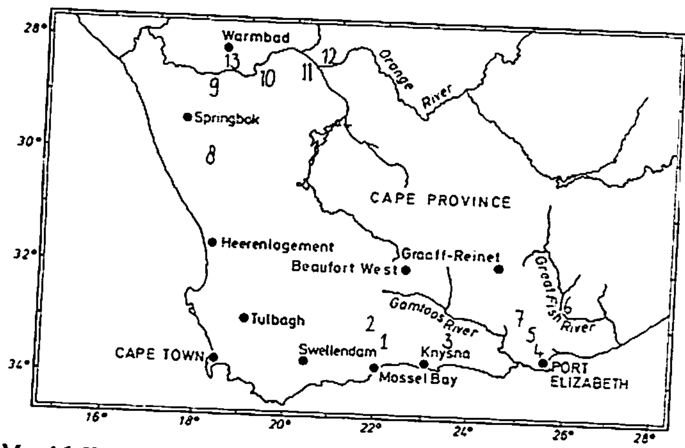
(Artiodactyla: Bovidae)

Drawings: GA 157, AM 6, IPA 422, Raper 1792.

Localities: Gordon 11, 39, 58, 60, 61, 71, 76, 96, 98. Paterson 19, 41. Levaillant 44, 45, 54. Swellengrebel (5.75). Hop (5.78). Wikar (5.79).

References: Andersen 1669:4. Schreyer 1681:81. Ten Rhyne 1686:19. Buttner (v.1713, 4.58). Kolb 1719:151. Valentijn 1723. Swellengrebel (v.1776, 5.75). Hop (5.78). Hop 1778:43. Wikar (v. 1778, 5.79). Mentzel 1787:367, 390.

Most records of the gemsbok were in the western part of the Cape Province, where it no longer occurs. Only Gordon mentioned its presence in localities in the southern part of the Cape Province, but it would be strange if an accurate observer like him would be mistaken in this case. Specimens were commonly available in Cape Town and some were taken back to Europe by J.R.Forster (a present of van Plettenberg), Sparrman and Thunberg. Gordon sent a skin to Allamand in Leiden, who acknow-



Map 16. Kudu *(Tragelaphus strepsiceros)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Elephants River (Gordon 10). 2. Gamka River (Gordon 46). 3. Dienie Douw (Gordon 101); Lange Kloof (Masson 15); Toorwater (Paterson 8). 4. Sunland (Sparrman 32); Sundays River (Sparrman 46); Zwartkops River (Thunberg 35). 5. Bosch River (Swellengrebel 5.75). 6. Great Fish River (Levaillant 23); Little Fish River (Sparrman 42); Koks Kraal (Sparrman 41). 7. Sundays River (Levaillant 20). 8. Ellenboogfontein (Levaillant 54). 9. Goodhouse (Levaillant 60). 10. Bo Narries (Gordon 75). 11. Aughrabies (Gordon 76). 12. Orange River (Gordon 78). 13. Warmbad (Paterson 46, Hop 5.77).

ledged it in Allamand (1781:38).

52. Syncerus caffer (Sparrman, 1779) Buffalo
(Artiodactyla: Bovidae)

Drawings: GA 181, CT 79, 80, UBL 35, KB 12, Swellengrebel SP 42.
Localities: Gordon 4, 10, 19, 29, 31, 33, 36, 37, 38, 78, 81, 103. Masson 9, 11, 13. Sparrman 17, 25, 27, 28, 32, 33, 34, 36, 41, 43, 44, 47, 48. Thunberg 7, 9, 34, 35. Paterson 4, 28, 30, 32, 33, 34, 35, 36. Levaillant 13, 14, 16, 19, 62, 64, 66. Swellengrebel (5.75).
References: Hondius 1652:24. de Flacourt 1658:378. Dapper 1668:641. Ogilby 1670:588. Leguat 1708,II:145. Bogaert 1711:104. Buttner (v.1713, 4.58). Kolb 1719:143. Swellengrebel (v.1776, 5.75). Hop (5.78). Hop 1778:39. Wikar (v.1778, 5.79). Mentzel 1787:369.

The buffalo no longer lives in the Cape Province apart from a relict population in Addo. The historical records are confined to the southern coastal belt east of Mossel Bay. In the east, the most northern record was at Somerset East. Buffaloes probably were absent in other parts of the Cape Province. It was seen, however, both by Gordon and by Paterson at Cape Hangklip south of Stellenbosch in 1779 and apparently there was a small population in that area. In the north, the buffalo was observed in southern Namibia and apparently no reports south of the Orange River in that part of the country are substantiated.

Thunberg brought a skull to Uppsala, Sparrman had a specimen which he described in 1779 as *Bos caffer*. He mentioned that it was common at 'Crake-Kamma' (Kraggakamma). The type locality 'near Sundays River, Algoa Bay, Eastern Cape' (Meester et al. 1986:214) was the place where Sparrman shot and examined a buffalo. This may have been the area where he obtained his specimen, or where he drew up his notes from which his description was taken.

53. Tragelaphus strepsiceros (Pallas, 1766) Kudu
(Artiodactyla: Bovidae)

Drawings: GA 162, B 47, CT 82, UBL 57, KB 25, Africana Museum 61/1247.
Localities: Gordon 10, 46, 75, 76, 78, 101. Masson 15. Sparrman 32, 41, 42, 46. Thunberg 35. Paterson 8, 46. Levaillant 20, 23, 54, 60. Swellengrebel (5.75). Hop (5.78).
References: Schreyer 1681:84. Ziegenbalg & Plütscho 1709:31. Kolb 1719:142. Valentijn 1723. Banks (v.1771, 5.70). Swellengrebel (v.1776, 5.75). Hop (5.78). Hop 1778:42. Mentzel 1787:367.

The kudu was seen by the 18th century travellers in the S.E. Cape Province and around the Orange River. It no longer occurs in the latter region. The animal was known in Europe from an early date. Husson & Holthuis (1975) showed that the 'Bock der keinen Namen' of Kolb (1719:142, pl.II f.2; 1727, pl. facing p.170) was in fact the kudu. There were quite a number of specimens in Europe. Sparrman, Thunberg and Paterson brought horns or skins to Europe. Buffon (1764,XII:303, pl.39) had a skull of the 'condoma' in Paris. Colini (1766) described and depicted a skin in the collection of Karl Theodor in Mannheim, imported from the Cape of Good Hope by a merchant named 'Pierre Nellen, de la seigneurie de Wickerad en Westphalie.' Pallas (1766:7) first named the kudu *Antilope strepsiceros* from a number of horns present in Holland. On 22 September 1776 a living kudu, sent from the Cape by Baron van Plettenberg, arrived in the menagerie of Willem V near The Hague. It lived about 3 months, after which its skin was included in the prince's cabinet. The animal was described by Vosmaer (1783a, pl.16) and Allamand (1781:143-146, pl.61). The type locality, given as 'Gammafluss = Löwen River' (see Meester et al. 1986:217) was taken from the account of Hop's journey to Namaqualand (Hop 1778:42).

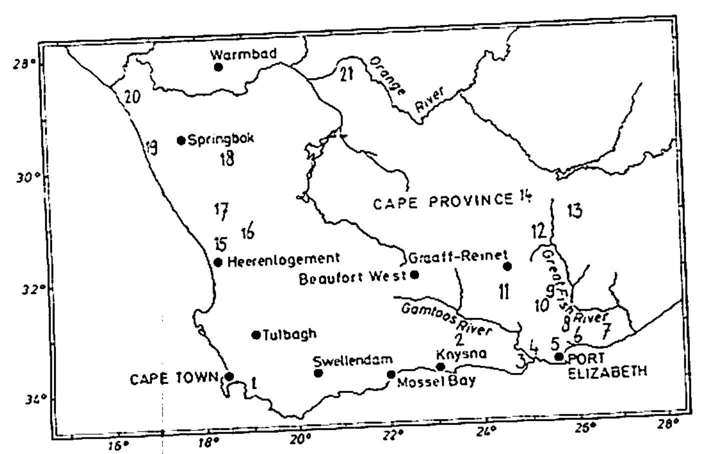
54. Tragelaphus scriptus (Pallas, 1766) Bushbok
subspecies: *T. s. sylvaticus* (Sparrman, 1780)
(Artiodactyla: Bovidae)

Drawing: GA 165.
Localities: Gordon 33, 46. Sparrman 17. Levaillant 12, 14, 26. Swellengrebel (5.75).
References: Swellengrebel (v.1776, 5.75).

The bushbok was recorded a few times in places in the southern Cape Province, where it still occurs today. It did not live near the Cape. Gordon said that it could only be found 60 hours east from Cape Town (GA 165). Sparrman (1780a, 1783:282-291) was the first to name the animal as *Antilope sylvatica*, primarily based on a skin which he took with him to Stockholm. On the basis of the localities mentioned by Sparrman, Roberts (1951:314) selected Grootvadersbos (34°1'S, 20°47'E) as the type locality. Thunberg (1787:25, 1811c:323) had another specimen in Uppsala, possibly an entire skin although in 1781 Immelman only sent him the horns, legs and tail. Gordon sent a drawing and the skin of a female to Allamand who mentioned the species in a short note (Allamand 1781:37, pl.15).

55. Taurotragus oryx (Pallas, 1766) Eland
(Artiodactyla: Bovidae)

Drawings: FC 30, B 48, PA 20 (?), GA 163, CT 97, UBL 113, KB 44, Swellengrebel SP 20, Africana Museum 61/1249, Brenthurst (no number).
Localities: Gordon 11, 15, 16, 19, 22, 24, 27, 29, 30, 32, 33, 36, 39, 56, 58, 61, 82. Sparrman 12, 33, 36, 38, 42, 45. Thunberg 32. Paterson 4, 20, 24, 29, 42. Levaillant 29, 33, 56. Cruythoff (2.9). Swellengrebel (5.75). van Plettenberg (5.77).
References: Hondius 1652:18. P.Cruythoff (v.1661, 2.9). Schreyer 1681:81. Hoffmann 1680:33. de Lacombe (v.1680, 2.27). de Chaumont 1686:5. Choisy 1687:80. Schweitzer 1688:14. Meister 1692:244. Maxwell 1707. Leguat 1708,II:145. Ziegenbalg & Plütscho 1709:31. Buttner (v.1713, 4.58). Vogel 1716:57. Silleman



Map 17. Eland *(Taurotragus oryx)*: records of distribution 1650-1790. Approximate localities are indicated by the following numbers. 1. Cape Hangklip (Paterson 4); Caledon (Sparrman 12). 2. Beervlei (Gordon 11); Traka River (Gordon 39, van Plettenberg 5.77); Heights (Thunberg 32). 3. Krom River (Gordon 36). 4. Witteklip (Paterson 29). 5. Port Elizabeth (Gordon 33). 6. Little Sundays River (Sparrman 33); Kommedagga (Sparrman 36); Kraal (Swellengrebel 5.75). 7. Bushmans River (Gordon 30); Hassegai-Bosch (Sparrman 45). 8. Great Fish River (Gordon 22, 29); Sundays River (Gordon 32). 9. Great Fish River (Gordon 19, Sparrman 38, 42, Swellengrebel 5.75). 10. Vogel River (Levaillant 29). 11. Swart River (Levaillant 33). 12. Hanover (Gordon 15). 13. Vlakpoort River (Gordon 24); Steynsburg (Gordon 27). 14. Seacow River (Gordon 16); Plettenberg River (van Plettenberg 5.77). 15. Elephant River (Cruythoff 2.9). 16. Doring River (Paterson 20); Lions Dance (Paterson 24). 17. Groene River (Gordon 56). 18. Buffels River (Levaillant 56). 19. Voorsigtigheidskloof (Gordon 58); Holgat River (Gordon 61). 20. Orange River mouth (Paterson 42). 21. Groblers hoop (Gordon 82).

& Thysz. 1718:14. Kolb 1719:145. Valentijn 1723. Barchewitz 1730:65. Schwarz 1751:30. Swellengrebel (v.1776, 5.75). Kindersley 1777:54. van Plettenberg (v.1778, 5.77). Mentzel 1787:371.

The eland is now exterminated in the Cape Province. The 18th century records are mostly confined to the eastern and N.W. Cape Province. It probably existed in the S.W. Cape Province, where it was still recorded by Paterson at Cape Hangklip and by Sparrman at Caledon.

Both Sparrman (1779e) and Thunberg took specimens to Sweden. J.R.Forster saw a female alive in the Cape menagerie in 1772. Gordon sent notes, a drawing and a skin to Holland, described by Allamand (1781:16-18, pl.7). Vosmaer (1783b) described a specimen which was exhibited in the menagerie of Willem V for a short period in 1780.

56. Redunca arundinum (Boddaert, 1785) — Reedbuck

(Artiodactyla: Bovidae)

Drawings: GA 167, 168.
Localities: Gordon 14, 26. Thunberg 30. Swellengrebel (5.75).
References: Swellengrebel (v.1776, 5.75).

The records about the reedbuck are confusing. Most authors were not clear about the distinctions between this species and other similar antelopes, while the existence of the mountain reedbuck (*Redunca fulvorufula*) was not clearly understood. Sparrman (1783:629) only saw a glimpse of a 'riet-rheebock' once, in the region called 'Agter-Bruintjes-Hoogte' in the eastern Cape Province. Thunberg (1789:50) recorded 'rietboks (*Capra*)' in the area near Swellendam, where it was never recorded otherwise. Skead (1980:487) regarded Thunberg's animal as indeterminate. Thunberg (1811c:314) later had a better idea about the distinction between the antelopes, after he studied his material and the sources more closely. Gordon told that the 'rietreebok' occurred beyond the Sneeuwberg (GA 168), never within 100 hours from the Cape (GA 167). One may suppose, therefore, that the reedbuck did not reach west further than roughly 25° longitude.

Specimens were rare in Europe. Thunberg probably received the skin of a male c.1782 from Immelman, recorded as *Antilope eleotragus* in Thunberg (1811c:323, 1818b:30). The same specimen was referred to *Antilope isabellina* by Afzelius (1815:250). Gordon sent a drawing to Allamand on 13 May 1779. Probably this shipment included drawings of a male and a female reedbuck, with some notes and a skin (Allamand 1781). This article on the 'ritbok' by Allamand included some details of the skin, and two plates (pls. 13, 14) were added which were reversed copies of GA 167 and GA 168. The description by Allamand, based on Gordon's material, was the only basis of the name *Antilope arundinum* Boddaert (1785:141), while Allamand's plate 13 of the male reedbuck was used by von Schreber (1787, pl.266) as *Antilope eleotragus*.

57. Redunca fulvorufula (Afzelius, 1815) — Mountain Reedbuck

(Artiodactyla: Bovidae)

The mountain reedbuck occurs today in mountainous regions further to the west than the reedbuck. It was differentiated by Gordon (GA 168): they 'houden sig veel op het gebergte, en schijnen echter van dit soort te zijn. Heb nog geen occasie gehad, dit op te helderen' (they usually live in the mountains and appear to belong to this species (= reedbuck), had no opportunity yet to clarify this). Gordon (GA 168, GM 16) called the animal the 'rode rietbok' (red reedbuck). He sent a skin to Allamand who briefly mentioned in it 1781:34. From this it was described by Afzelius (1815:250) as *Antilope fulvorufula*. Afzelius tentatively also assigned Thunberg's 'rietbok' to this species, see *Redunca arundinum*.

58. Xerus inauris (Zimmermann, 1780) — Ground Squirrel

(Rodentia: Sciuridae)

Drawings: PA 28, GA 219, UBL 230.
Localities: Gordon 13. Levaillant 68.

The ground squirrel now only occurs in the northern Cape Province extending further north and east. Levaillant recorded it from the Orange River, Gordon from Vrede in the eastern Cape Province. The specimen listed by Lichtenstein (1793:2) as *Sciurus namaquensis* may have been collected by Levaillant, and it would be conceivable that the animal was drawn on UBL 230. Levaillant may have given other examples to Joan Raye and Jacob Temminck, in whose collections specimens were examined (without the attribution to Levaillant) by Kuhl (1820b:67) as *Sciurus levaillantii*.

59. Pedetes capensis (Forster, 1778) — Springhare

(Rodentia: Pedetidae)

Drawings: FC 13, FG 2, GA 224, 225, CT 107, UBL 200.
Localities: Gordon 17, 44, 83. Sparrman (1783:600). Thunberg 43. Levaillant 64.
References: Hop 1778:61. Mentzel 1787:382.

The springhare first became known in Holland through a living specimen imported by a Mr.Holst in 1775. It was described by J.C.Klöckner in Allamand (1776:117-119, pl.15) with locality

'une montagne nommé Sneuwberg.' Possibly the same specimen was seen by Pallas (1779:87) and named *Mus cafer*.

J.R.Forster was able to examine 6 springhares in the menagerie in Cape Town in March-April 1775. Governor van Plettenberg gave him one, which he tried to take to England alive, but it died on board on 27 June 1775 (Hoare 1982:754). This specimen was drawn by George Forster and, together with Forster's notes, it was the basis of Forster's description of *Yerbua capensis* in 1778. The drawing made by George Forster is present as FC 13. The later drawing (FG 2) and the engraving published by Forster (1778, pl.3 and in Buffon 1782, pl.41) and by Miller (1782, pl.31; 1796, pls. 31, 60) are quite similar, usually in reverse compared with the drawing, sometimes with the addition of sketches of the animal's genital parts and mouth. Plate VII in the French edition of Sparrman's travel account (1787, see 9.4) was also copied from Forster (1778). The plate in von Schreber (1780,IV:854, pl.230) was copied from 'das in Farben schön gemahlte Original' by George Forster. It shows the animal in a sitting position, unlike the other known depictions.

Forster (1778) stated that the springhare was found at the foot of the mountain (Table Mountain?) 'bey der Colonie Stellenbosch', i.e. just east of Cape Town. One wonders if Forster had not misunderstood. Sparrman (1778) added to Forster's paper that the species was found in the Camdebo (region around Aberdeen). Later, Sparrman (1783:600, 1977:152) put it 'in the vicinity of Stellenbosch and Camdebo.' It is likely that the first locality was a mistake. Gordon (GA 225) said that the species occurred near the Sneeuwberg in the Camdebo, and not within 100 hours travel from the Cape. Today the springhare is unknown in the S.W. Cape Province (De Graaff 1981:41) and on the available evidence its presence there cannot be substantiated. Thunberg (1986:309) recorded the place nearest to the Cape, the mountains near Tulbagh. Gordon and Levaillant saw it along the Orange River.

60. Hystrix africaeaustralis Peters, 1852 Porcupine
(Rodentia: Hystricidae)
Drawing: IPA 384.
Localities: Gordon 55, 57, 97. Sparrman 12, 13, 43. Levaillant 18.
References: Hondius 1652:24. J.Blank (v.1652, 2.3). Saar 1662:158. Merklein 1672:1094. de Beaulieu 1664:8. Herport 1669:15. Tavernier 1676:505. Vermeulen 1677:13. Schreyer 1681:82. Nieuhof 1682:8. van Reede (v.1685, 2.30). Ten Rhyne 1686:19. Schweitzer 1688:14. Frik 1692:29. Meister 1692:244. Langhansz 1705:127. Leguat 1708,II:145. Bogaert 1711:104. Buttner (v.1713, 4.58). Kolb 1719:166. Valentijn 1723. Barchewitz 1730:65. de la Caille 1763:292. Mentzel 1787:401.

The porcupine is wide-spread in the Cape Province. The early localities, few as they are, were located in different regions of the Cape Province, which shows that porcupines often went unnoticed. It was available in European collections. Sparrman (1783:182) brought a foetus in spirits to Stockholm, Thunberg (1811c:323, 1818b:30) had a specimen in Uppsala, while another was in the collection of the Leiden University (list of 1834). The late description of the species was due to confusion with the Asian porcupine, like *Hystrix cristata* described by Linnaeus (1758:65).

61. Petromus typicus A.Smith, 1831 Dassie Rat
(Rodentia: Petromuridae)
Drawing: PA 32.

Paterson's drawing of the 'rock mouse' probably depicted this species. He must have seen it in the western Cape Province.

62. Bathyergus janetta Thomas & Schwann, 1904 Namaqua Dune Molerat
(Rodentia: Bathyergidae)
Drawings: GA 222, PA 36.

Gordon twice recorded 'blesmollen' near Ellenboogfontein in Namaqualand, i.e. on 10 September and 28 December 1779. *Georychus capensis* is unknown that far north. Drawing GA 222 depicted the 'grey so-called mole from Namaqualand' (no scale). The colouring of the animal on the drawing could be compatible with the Namaqua dune molerat: dark dorsally, lighter on the sides, with white ear-region and chin. The head otherwise is dark. Paterson's drawing PA 36 is less good and not recognisable to be a copy from GA 222. It also shows, vaguely, the colour distinction of a dark back and lighter sides. Paterson was together with Gordon in September 1779 and maybe he received a preliminary sketch of the same animal.

63. Bathyergus suillus (Schreber, 1782) Cape Dune Molerat
(Rodentia: Bathyergidae)
Drawings: GA 216, 217, PA 30, FC 10, 11, 12.
Localities: Gordon 38. Masson 18. Thunberg 16, 20, 42. Starrenburg (4.48).
References: (including those for *Georychus*, no. 65) J.Danckaert (v.1660, 2.8). J.Starrenburg (v.1705, 4.48). Kolb 1719:157. Hop 1778:64. Mentzel 1787:389.

The Cape dune molerat was encountered, due to its dangerous holes, in the South-western and southern Cape Province (most eastern locality was Plettenberg Bay). In vernacular it was called 'land-moll' (Masson 1776), 'sand-moll' (Sparrman 1783, Thunberg 1788) or 'duinmol' (Gordon). J.R.Forster was the first to notice the animal at the Cape of Good Hope and write about it in his letters to Linnaeus and to Pennant, both dated 19 November 1772. He called it the 'great mole' or '*Fossor capensis*'. The Latin description probably was included in both letters, but it only survived in the one to Linnaeus, quoted in 6.4.1. Some sketches of the animal were included in these communications. Linnaeus died in 1778 and apparently had no chance to include it in his *Systema Naturae*. Pennant (1781:472) listed the 'African rat' without reference to Forster. The latter also did not publish a description.

Sparrman (1783:601) mentioned the 'sand-moll' with reference to Pennant's name in a latinized version: *Mus africanus*. Thunberg (1788:293) used the same name as *Marmota africana*, which should be included in synonymies of *Bathyergus suillus*. Later, Thunberg (1811c:307) followed Gmelin in his use of *Arctomys maritimus*. Thunberg brought a specimen to Uppsala (1811c:322), which probably was the one depicted on the plate included in Thunberg (1788 , pl.I). It is not clear why Thunberg selected this particular species as the only mammal to be illustrated, or in the words of Forbes (1986:xxx): 'It is such a poor representation that it is hard to understand why it was included, especially as the animal is not of outstanding interest.' The only reason could be that Thunberg thought, without being sure, that there could be two varieties of dune-mole; the usual one being earth-coloured, the other white as the specimen on the plate (cf. Thunberg 1811c:307).

Gordon examined this species soon after his arrival at the Cape acording to the dates found on the drawings: 2 August 1777 (GA 217) and 10 July 1778 (GA 216). The latter drawing included a long description of the animal's habits. On 13 May

16

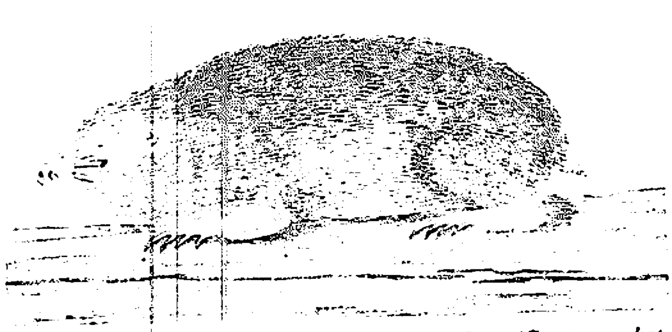


Fig. 150 Gordon Atlas (GA 223): Common molerat *(Cryptomys hottentotus)*.



Fig. 151 Gordon Atlas (GA 226): Cape molerat *(Georychus capensis)*.

1779, Gordon sent a drawing of the 'duinmol' to Allamand in Leiden, possibly including some notes. The information was published by Allamand (1781:24-25, pl.X) with the name 'la taupe des dunes.' The plate differs fmr GA 216 – in the latter, the incisor teeth are much longer, the position of the head differs, the nails on the front feet are longer, etc.

64. Cryptomys hottentotus (Lesson, 1826)
Common molerat

(Rodentia: Bathyergidae)
Drawing: GA 223.
Locality: Gordon 16.

Gordon may have meant this species when he described and depicted a specimen of mole found in the Camdebo. In his Journal of 19 November 1777, while near the Seacow River, he mentioned holes of the blesmol. However, *Georychus capensis* is unknown in that region. The drawing was dated 16 October 1778, when Gordon was roughly in the same area as the previous year. The specimen was the colour of steel and smaller than the blesmol (stated on GA 227). In view of the locality and the size, the animal could belong to *Cryptomys hottentotus*. Gordon mentioned the occurence in his notes to Allamand, who included it in his paper on the blesmol (Allamand 1781:23). This short sentence by Allamand was not used to describe a new species.

65. Georychus capensis (Pallas, 1779)
Cape molerat (blesmol)

(Rodentia: Bathyergidae)
Drawings: FC 9, B 34 , GA 226, 227.
Localities: Gordon 66, 88. Masson 18. Thunberg 16, 20.
References: see no. 62.

The blesmol is confined to the S.W. and southern Cape Province, where it was recorded by Masson (1776:305) and Thunberg (1788:293, 1789:5). Gordon mentioned the blesmol found in the Camdebo (locality 16) and in Namaqualand (localities 66, 88). The species is not known there, and Gordon may have confused them with *Cryptomys hottentotus* and *Bathyergus janetta*. Gordon probably saw the Cape molerat near the Cape. His drawing GA 227 was dated 6 August 1777. It included a long text, some of which must have been added later because there is a reference to the 'staalmol' depicted on GA 223. Gordon here noted the main distinction between the molerats, i.e. the upper incisors being grooved in *Bathyergus*, never so in *Georychus*. On 13 May 1779, Gordon sent a skin, a drawing and some notes to Allamand in Leiden. Allamand (1781:22-23, pl.9) described the skin, included some of Gordon's observations. The plate probably was engraved after the skin, because it does not resemble GA 226.

Thunberg (1794:131, 1811c:322) had a specimen in Uppsala. Masson gave one to Sir John Pringle of the Royal Society, from where it came to the collection of Joseph Banks (caption of B34). Masson probably also gave the specimen owned by Mr.Lee in Hammersmith depicted by Brown (1776:111, pl.46) as 'the long-tailed marmot'.

The Cape molerat was first described by Buffon (1776, sup.3: 193-194, pl.33) as 'petite taupe du Cap' from a skin sent to Paris by Pierre Sonnerat. A second note was by Pallas (1779:172-175, pl.7) based on a skin which he received from N.L.Burman and a drawing owned by J.Burman. This description by Pallas of *Mus capensis* confused the dune molerat and the Cape molerat inasmuch as it referred to Masson 's 'land moll' and it included the vernacular 'zand moll' indicating *Bathyergus suillus*. The characteristics of the skin, however, pertain to the blesmol, which is also the species shown on Pallas's plate 7 although the usual white spot on the forehead is neither visible nor mentioned in the text.

66. Parotomys brantsii (A Smith, 1834)
Brants's whistling rat

(Rodentia: Muridae)

Thunberg (1811c:308) included only one 'nova species' in his revision of Cape mammals: *Arctomys vigil*. When I was unable to trace this rodent in current checklists like Allen (1939), de Graaff (1981) and Meester et al. (1986), I referred the matter to Dr.J.A.J.Meester. Thunberg's notes proved to be a reasonably good description of *Parotomys brantsii*. The paragraph in Thunberg was quoted and translated in Rookmaaker (1988b). Thunberg did not have a specimen. Considering that *Arctomys vigil* predates *P.brantsii* and that Thunberg's description was valid and available, while *A.vigil* remained unused, the suppression of Thunberg's name in favour of *Parotomys brantsii* recently was requested from the ICZN (Rookmaaker & Meester 1988, case no. 2605).

67. Otomys sp.,
vlei rats

(Rodentia: Muridae)
Drawings: GA 221 , PA 31.

The two drawings are similar, showing a big-bodied rodent (no size indicated) with some darker spots on the back. PA 31 was left unidentified in Forbes & Rourke (1980:173), GA 221 was



Fig. 152 Gordon Atlas (GA 146): Spectacled dormouse *(Graphiurus ocularis)*.

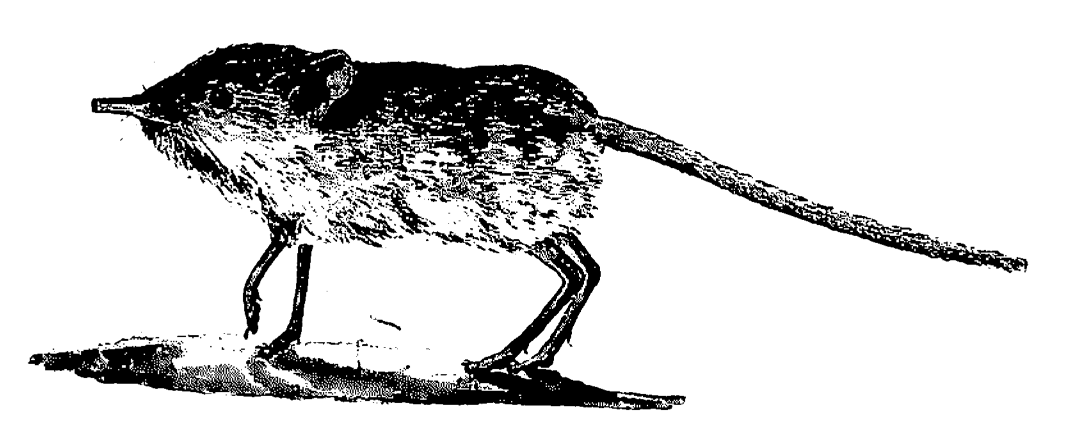


Fig. 153 Elephant shrew *(Macroscelides proboscideus)*, in the Paterson Albums (PA 34).



Fig. 154 Gordon Atlas (GA 231): Round-eared elephant shrew *(Macroscelides proboscideus)*.

tentatively identified to *Otomys* sp. in Rookmaaker (1980:19). This can be continued here, with the remark that this animal may well represent another species.

68. Rhabdomys pumilio (Sparrman, 1784) Striped mouse
(Rodentia: Muridae)
Drawing: GA 220.

Sparrman (1784a) was first to describe this species, as *Mus pumilio* from a specimen in spirits presented to the KVA in Stockholm. Its length was 'eine Decimallzoll'. The plate was life-size, the animal very small, about 1/25.000 of the size of a hippopotamus. Sparrman obtained his specimen 'in the forest of Sitsicamma, hard by Slangen-river'. This was not the Slangen River between Swellendam and Heidelberg, but the Slang River just west of Cape St.Francis, 34°12'S, 24°40'E (see Sparrman 1975:314). Gordon (GA 220) was correct in saying that the animal was not as small as indicated by Sparrman. GA 220 is a nice drawing of the striped mouse, without scale, and at least the text must have been prepared in 1785 or later (because Gordon referred to Sparrman's description which he had seen in the English translation of the *Resa*).

69. Graphiurus ocularis (A.Smith, 1829) Spectacled dormouse
(Rodentia: Gliridae)
Drawing: GA 146.

Gordon had seen only one specimen of this kind drawn on GA 146. It was caught in the 'franse hoek' (33°55'S, 19°8'E) near the Cape. The drawing was made after a dead specimen in view of the rigid tail. It should be *Graphiurus ocularis*, although the eye region should have been black instead of white.

70. Oryctolagus cuniculus (Linnaeus, 1758) Rabbit
(Lagomorpha: Leporidae)
References: Hondius 1652:24. Dapper 1668:641. Ogilby 1670:588. Nieuhof 1682:9. de Chaumont 1686:5. Bogaert 1711:104. Buttner (v.1713, 4.58). Vogel 1716:56. Kolb 1719:153. Valentijn 1723. Ekeberg 1773:53. Mentzel 1787:387. von Wurmb & von Wollzogen 1794:86.

The rabbit was introduced in the time of Van Riebeeck. It now only survives on some off-shore islands. It was only seldom recorded, e.g. on Taxen island in Saldanha Bay by Thunberg (1986:184).

71. Lepus sp. Hares
(Lagomorpha: Leporidae)
Drawings: GA 228, 229, PA 29, B 33, TC 735, 739 (b).
Localities: Gordon 13, 14, 15, 16, 25, 27, 30, 57, 60, 90. Masson 3, 18. Sparrman 17, 30. Levaillant 1, 33, 44, 60.
References: Hondius 1652:24. P.van Hoorn (v.1663, 2.12). Dapper 1668:641. Andersen 1669:4. Ogilby 1670:588. Schreyer 1681:82. Hoffmann 1680:33. Nieuhof 1682:9. van der Stel (ch.3). de Chaumont 1686:5. Ten Rhyne 1686:19. Meister 1692:244. Bogaert 1711:104. Buttner (v.1713, 4.58). Vogel 1716:56. Kolb 1719:151. Valentijn 1723. de la Caille 1763:292. Ekeberg 1773:53. Swellengrebel (v.1773, 5.74). van Plettenberg (v.1778, 5.76). Mentzel 1787:387. von Wurmb & von Wollzogen 1794:86.

Two species of hare occur in suitable places of the Cape Province: *Lepus capensis* Linnaeus, 1758 (the Cape hare) and *Lepus saxatilis* F.Cuvier, 1823 (the scrub hare). None of the available descriptions and drawings are clear enough to distinguish between these species with certainty.

72. Pronolagus rupestris (A.Smith, 1834) Smith's red hare
(Lagomorpha: Leporidae)
Drawing: TC 739(a).
Locality: Levaillant 57.

Levaillant (1795,II:186) mentioned a 'roode-gat-haas' in Little Namaqualand. In view of the reddish back parts, it could have been an example of *Pronolagus rupestris*.

73. Macroscelides proboscideus (Shaw, 1800) Round-eared elephant shrew
(Macroscelida: Macroscelididae)
Drawings: GA 230, 231, PA 34, 35, TC 737, IPA 361(a), AM 3, SAPL-Z3.
References: van der Stel (ch.3).

GA 230 is like PA 34, GA 231 like PA 35. Gordon, in his Journal of 2 August 1779, only recorded it in the N.W. Cape Province. On GA 230 he claimed to have named it 'oliphants muis' (elephant mouse) for the first time. It was earlier seen and drawn during Simon van der Stel's expedition on 25 September 1685 somewhat further to the south. The identification is partly based on the distribution.

CHAPTER 14

Birds

If the records concerning the mammals were scanty, but in some cases sufficient for some conclusions about the distribution and history of their discovery, the data about the birds are much less detailed. In this chapter I have given a summary of the available data for each species of bird under four headings: (1) *Drawings* listing those in the various collections discussed in chapters 3, 6 to 12; (2) *Localities* listing the places where they were noted by Gordon, Masson, Sparrman, Thunberg, Paterson and Levaillant, with the numbers referring to the analyses of their travels in the chapters concerned; (3) *Specimens* referring to those discussed in earlier chapters, and (4) *References* with the literature or unpublished notes of the main explorers. In the last category I have not included the early references discussed in chapters 2-5, because in most cases the indications were very general and the identifications of the various names often far from certain. I have only added a discussion where the data seem to require this, considering the identification, taxonomy and nomenclature.

Levaillant was unique among the 18th century explorers in making a detailed study of the birds of Southern Africa. The others sometimes made some remarks or they prepared drawings, but in the end it doesn't add up to much in most cases. Levaillant described many species of South African birds in his various publications and although he only used French names, his accounts were the basis of numerous names and selections of type localities. Many of his specimens, therefore, represent types of the various taxa. It is likely that Levaillant in most cases, unless specifically noted, used a series of specimens when he wrote his descriptions. The birds in that series are the syntypes of a species if his description was the sole basis for a certain name. The specimen depicted on a plate or a drawing connected with Levaillant's travels is one of the syntypes. It is one of the type specimens, but not automatically *the* type specimen, unless Levaillant stated that he knew only one specimen or the bird on the plate was explicitly chosen as lectotype later. As shown in chapter 12, most specimens collected by Levaillant are now either destroyed or unrecognised. For that reason, the depictions of his specimens either published in one of his books or available in one of the collections of watercolours are important to taxonomists. These illustrations are the nearest we can get today to the birds studied by Levaillant.

In the species accounts, the current scientific name follows Clancey (1980) and Clancey et al. (1987), while the English name is taken from Maclean (1985). For each species the order and family in which it is classified is given, again according to Clancey.

As explained in the introduction to chapter 13, this historical research has pointed at some nomenclatorial inconsistencies. In the course of this chapter I have mentioned some cases which will need the attention of the taxonomists concerned with those groups. They are here listed for ease of reference, following the species numbers in this chapter:

48. Discussion on the type locality 'Pays d'Auteniquoi'.

167. *Mirafra apiata* (Vieillot, 1816) antedated by *Alauda percutiens* Wilkes, 1808.

170. *Galerida magnirostris* (Stephens, 1826) antedated by *Alauda rostro-crassa* Wilkes, 1808.

177. *Campephaga flava*; who was the first reviser to choose this name?

182. *Oriolus larvatus* Lichtenstein, 1823 antedated by *Oriolus africanus* Wilkes, 1820.

198. *Oenanthe monticola* Vieillot, 1818 antedated by *Motacilla montana* Wilkes, 1817.

200. *Cercomela familiaris* (Stephens, 1826) antedated by *Motacilla familiaris* Wilkes, 1817.

202. *Myrmecocichla formicivora* (Vieillot, 1818) antedated by *Motacilla formicivora* Wilkes, 1817.

208. *Erythropygia coryphaeus* (Lesson, 1831) antedated by *Sylvia coryphoeus* Vieillot, 1817 and *Motacilla coryphaea* Wilkes, 1817.

216. *Camaroptera brachyura* (Vieillot, 1820) antedated by *Motacilla viridis* Wilkes, 1817.

220. *Prinia flavicans* (Vieillot, 1820) antedated by *Motacilla citrina* Wilkes, 1817.

228. *Motacilla aguimp* Dumont, 1821 antedated by *Motacilla arenaria* Wilkes, 1817.

234. *Dryoscopus cubla* (Shaw, 1809) antedated by *Lanius cubla* Latham, 1801.

238. Type locality 'Baie Lagoa' is Plettenberg Bay.

242. *Lamprotornis nitens* subsp. is *Sturnus nabirop* Temminck, 1807.

255. *Zosterops pallidus* subsp. is *Motacilla tcheric* Wilkes, 1817.

SPECIES ACCOUNTS

1. Struthio camelus Linnaeus, 1758 — Ostrich
subspecies: *S.c.australis* Gurney, 1868
(Struthioniformes: Struthionidae)
Drawings: GA 306, 307.
Localities: Gordon 10, 11, 15, 23, 39, 51, 56, 62, 66, 67, 68, 76, 95, 97, 100, 101, 103. Masson 12. Sparrman 12, 38, 42. Thunberg 1, 21, 24, 40. Paterson 8, 42. Levaillant 5, 6, 23, 27, 33, 45, 60, 62, 67.
Specimens: KVA Stockholm (skin from Sparrman). RMNH Leiden (2 skeletons in 1834 from old collection of Leiden University).
References: Thunberg ms. (10.7.3). Brown 1776:37-38, pl.16.

The ostrich no longer exists ferally in the Cape Province. It must have been common earlier as it was often recorded.

2. Spheniscus demersus Linnaeus, 1758 — King penguin
(Sphenisciformes: Spheniscidae)
Drawings: UBL 3, KB 1.
Localities: Sparrman 1, 2. Levaillant 1, 72.
Specimens: KVA Stockholm (skin from Sparrman). Raye (1827, no.1071). Holthuysen (Lichtenstein 1793:26, no.263). Boers 1797:22, no.175. Edinburgh Museum (from Dufresne).
References: Thunberg ms. (10.7.3).

3. Eudyptes chrysocome (Forster, 1781) Rockhopper penguin
(Sphenisciformes: Spheniscidae)
Drawings: UBL 240, Yale 1.
Locality: Levaillant 72.
References: Levaillant 1797-98,I, pl.facing p.41 (Manchot aigretté)

4. Podiceps cristatus Linnaeus, 1758 Great crested grebe
subspecies: *P.c.infuscatus* Salvadore, 1884
(Podicipediformes: Podicipedidae)
Drawings: IPA 374, AM 17.

5. Tachybaptus ruficollis Pallas, 1764 Little grebe
subspecies: *T.r.capensis* (Salvadori, 1884)
(Podicipediformes: Podicipedidae)
Specimen: Temminck (1807:180, 267, no.250).

6. Diomedea exulans Linnaeus, 1758 Wandering albatros
(Procellariiformes: Diomedeidae)
Drawing: Sydney, Mitchell Library (collection mentioned in 6.5, folio 43, specimen seen 24 October 1772 during Cook's voyage).
Reference: Thunberg ms. (10.7.3).

7. Diomedea chlororhynchos Gmelin, 1789 Yellownosed albatros
(Procellariiformes: Diomedeidae)
Reference: Thunberg ms. (10.7.3).

8. Fulmarus glacialoides (A.Smith, 1840) Antarctic fulmar
(Procellariiformes: Procellariidae)
Drawing: UBL 1.
Specimen: Raye (1827, nos. 1072, 1073).

9. Daption capense (Linnaeus, 1758) Cape pigeon
(Procellariiformes: Procellariidae)
Drawing: FC 96.
Specimens: KVA Stockholm (skin from Sparrman). Holthuysen (Lichtenstein 1793:26, no.266).
Reference: Thunberg ms. (10.7.3).

10. Procellaria aequinoctialis Linnaeus, 1758 Whitechinned petrel
(Procellariiformes: Procellariidae)
Reference: Thunberg ms. (10.7.3).

11. Pelecanus onocrotalus Linnaeus, 1758 White pelican
(Pelecaniformes: Pelecanidae)
Drawing: GA 348. = Pelecanus rufescens
Localities: Gordon 62, 93. Masson 10. Thunberg 16. Levaillant 11, 71.
Reference: Thunberg ms. (10.7.3).

The early records probably often confused this and the next species.

12. Pelecanus rufescens Gmelin, 1789 Pinkbacked pelican
(Pelecaniformes: Pelecanidae)
Drawing: UBL 134.
Locality: Levaillant 43.

13. Morus capensis (Lichtenstein, 1823) Cape gannet
(Pelecaniformes: Sulidae)
Drawings: GA 345, UBL 132, 133.
Localities: Levaillant 43.
Specimens: Raye (1827, nos. 1085, 1086)
References: Thunberg ms (10.7.3).

14. Phalacrocorax carbo Linnaeus, 1758 Whitebreasted cormorant
subspecies: *P.c.lucidus* (Lichtenstein, 1823)
(Pelecaniformes: Phalacrocoracidae)
Drawings: UBL 143, IPA 372, AM 8.
Specimens: Raye (1827, no.1083).

15. Phalacrocorax capensis (Sparrman, 1788) Cape cormorant
(Pelecaniformes: Phalacrocoracidae)
Drawings: GA 343, 346, UBL 144, IPA 371.
Localities: Gordon 59.
Specimens: Riksmuseet Stockholm (from Sparrman, via J.G.von Carlsson). Raye (1827, no.1084).
References: Sparrman 1788, no.61.

Sparrman collected a specimen at False Bay, the type locality of this bird. His specimen given to von Carlsson is still extant in Stockholm.

16. Anhinga melanogaster Pennant, 1769 Darter
subspecies: *A.m.rufa* (Lacépède & Daudin, 1802)
(Pelecaniformes: Anhingidae)
Drawings: UBL 141, 142.
Localities: Levaillant 45.
Specimens: Temminck (1807:196, 268, no.220). Raye (1827, no.1088). RMNH Leiden (see 12.19).

17. Ardea cinerea Linnaeus, 1758 Grey heron
(Ciconiiformes: Ardeidae)
Drawings: GA 317, PA 89, FC 112, 113.
Localities: Thunberg 42.
References: Thunberg ms. (10.7.3).

18. Ardea purpurea Linnaeus, 1766 Purple heron
(Ciconiiformes: Ardeidae)
References: Thunberg ms. (10.7.3).

19. Egretta alba (Linnaeus, 1758) Great white egret
subspecies: *E.a.melanorhynchos* (Wagler, 1827)
(Ciconiiformes: Ardeidae)
Drawings: GA 323, UBL 33, KB 10, B 42.
Locality: Levaillant 13.
Specimen: Raye (1827, no.996).
References: Thunberg ms. (10.7.3).

20. Egretta garzetta (Linnaeus, 1766) Little egret
(Ciconiiformes: Ardeidae)
Drawings: UBL 32, KB 9.
Locality: Levaillant 13.
Specimens: Raye (1827, nos. 992-994).

21. Ardeola ralloides (Scopoli, 1769) Squacco heron
(Ciconiiformes: Ardeidae).
Locality: Levaillant 24. – ident. onzeker.

22. Nycticorax nycticorax (Linnaeus, 1758) Blackcrowned night heron
(Ciconiiformes: Ardeidae).
Drawings: IPA 370.
Localities: Thunberg 42.
References: Thunberg ms. (10.7.3).

23. Botaurus stellaris (Linnaeus, 1758) Bittern
subspecies: *B.s.capensis* (Schlegel, 1863)
(Ciconiiformes: Ardeidae)
Drawings: GA 337, PA 42.

24. Scopus umbretta Gmelin, 1789 Hamerkop
(Ciconiiformes: Scopidae)
Drawings: GA 310, UBL 22, B 52.
Specimens: Temminck (1807:164, no.200). Raye (1827, no.1014).

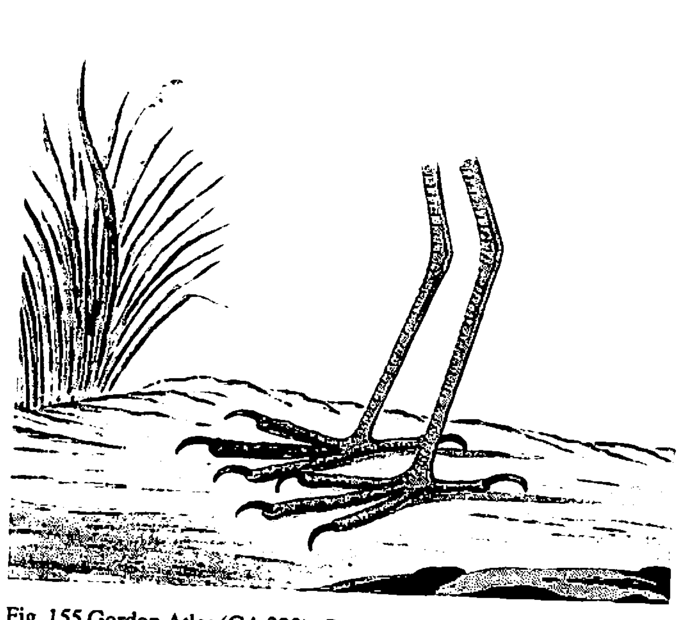


Fig. 155 Gordon Atlas (GA 323): Great white egret *(Egretta alba)*.

Royal Society, London (from Forster, 6.7).
References: Forster 1844:47. Brown 1776:89-90, pl.35.

25. Ciconia nigra (Linnaeus, 1758) — Black stork
(Ciconiiformes: Ciconiidae)
Specimen: Holthuysen (Lichtenstein 1793:29, no.284).

26. Mycteria ibis (Linnaeus, 1766) — Yellowbilled stork
(Ciconiiformes; Ciconiidae)
Drawings: GA 311, 312, UBL 148.
Localities: Gordon 38, 46. Levaillant 49.

27. Threskiornis aethiopicus (Latham, 1790) — Sacred ibis
(Ciconiiformes: Plataleidae)
Drawings: GA 321, PA 85, 86, TC 753, IPA 354, SAPL-Z8.
Locality: Thunberg 10.
References: Thunberg ms. (10.7.3).

28. Geronticus calvus (Boddaert, 1783) — Bald ibis
(Ciconiiformes: Plataleidae)
Drawings: GA 313, UBL 123, FC 116, FG 15.
Localities: Gordon 31.
Specimens: Temminck (1807:169, no.196).
References: Forster 1844:47. Vosmaer 1804.

Vosmaer described and illustrated a specimen seen alive in the menagerie of Willem V in The Hague before 1795.

29. Bostrychia hagedash (Latham, 1790) — Hadeda
(Ciconiiformes: Plataleidae)
Drawings: UBL 95, KB 38.
Localities: Sparrman 17.
Specimens: Temminck (1807:169, 257, no.191). Holthuysen (Lichtenstein 1793:31, no.297).

30. Platalea alba Scopoli, 1786 — African spoonbil
(Ciconiiformes: Plataleidae)
Drawings: UBL 146.
Reference: Thunberg ms. (10.7.3).

31. Phoenicopterus ruber Linnaeus, 1758 — Greater flamingo
subspecies: *P.r.roseus* Pallas, 1811.
(Phoenicopteriformes: Phoenicopteridae)
Drawings: GA 338, 340, PA 91, CT 112.
Localities: Gordon 2, 32, 59, 60, 62. Masson 10. Sparrman 6. Thunberg 1, 17. Paterson 40, 41. Levaillant 11, 71.
Specimens: Raye (1827, nos. 1061-1063).
References: Thunberg ms. (10.7.3).

The scanty literary records usually do not provide enough information to distinguish between the greater and the lesser flamingoes.

32. Phoeniconaias minor (Geoffroy, 1798) — Lesser flamingo
(Phoenicopteriformes: Phoenicopteridae)
Drawings: GA 339, PA 92, UBL 122.

33. Dendrocygna viduata (Linnaeus, 1766) — White faced duck
(Anseriformes: Anatidae)
Drawings: B 55, FC 76.
References: Sonnerat 1782,II:221.

34. Alopochen aegyptiacus (Linnaeus, 1766) — Egyptian goose
(Anseriformes: Anatidae)
Drawings: GA 341.
Localities: Thunberg 43.
References: Thunberg ms. (10.7.3). Sonnerat 1782,II:220.

35. Tadorna cana (Gmelin, 1789) — South African shelduck
(Anseriformes: Anatidae)
Drawings: GA 342, 347, FC 69, 70.
Localities: Gordon 40, 56. Levaillant 46, 56.
Specimens: Collection of J.R.Forster (1796,I:188, see 6.7).
References: Forster 1844:44. Thunberg ms. (10.7.3).

36. Anas undulata Dubois, 1827 — Yellowbilled duck
(Anseriformes: Anatidae)
Drawings: FC 72.
References: Forster 1844:51.

37. Anas capensis, Gmelin, 1789 — Cape teal
(Anseriformes: Anatidae)
Drawings: FC 75.
References: Forster 1844:53. Thunberg ms. (10.7.3).

38. Anas erythrorhyncha Gmelin, 1789 — Redbilled teal
(Anseriformes: Anatidae)
Drawings: GA 344, FC 73.
References: Forster 1844:51. Thunberg ms. (10.7.3).

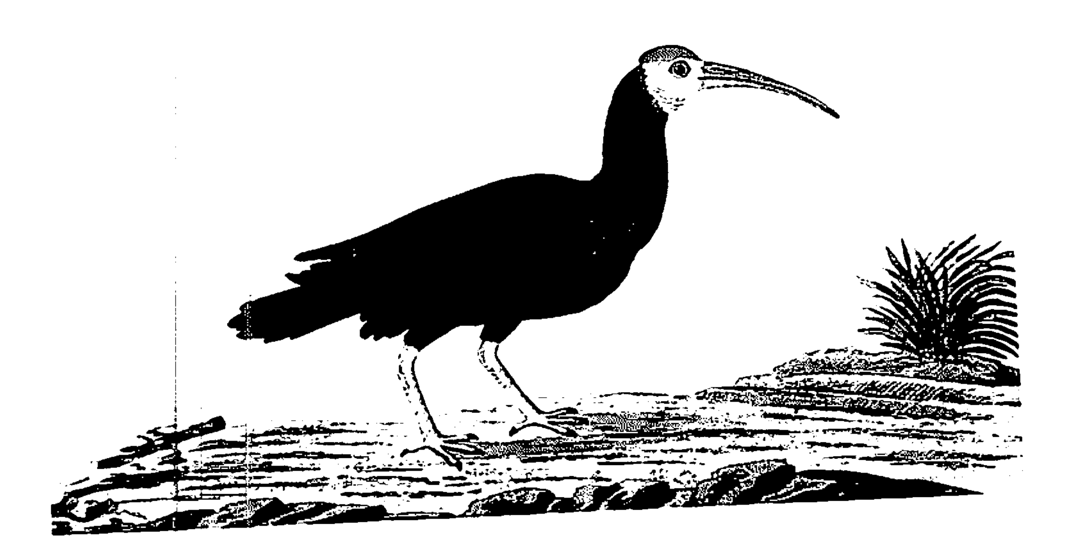


Fig. 156 Gordon Atlas (GA 313): Bald ibis *(Geronticus calvus)*.

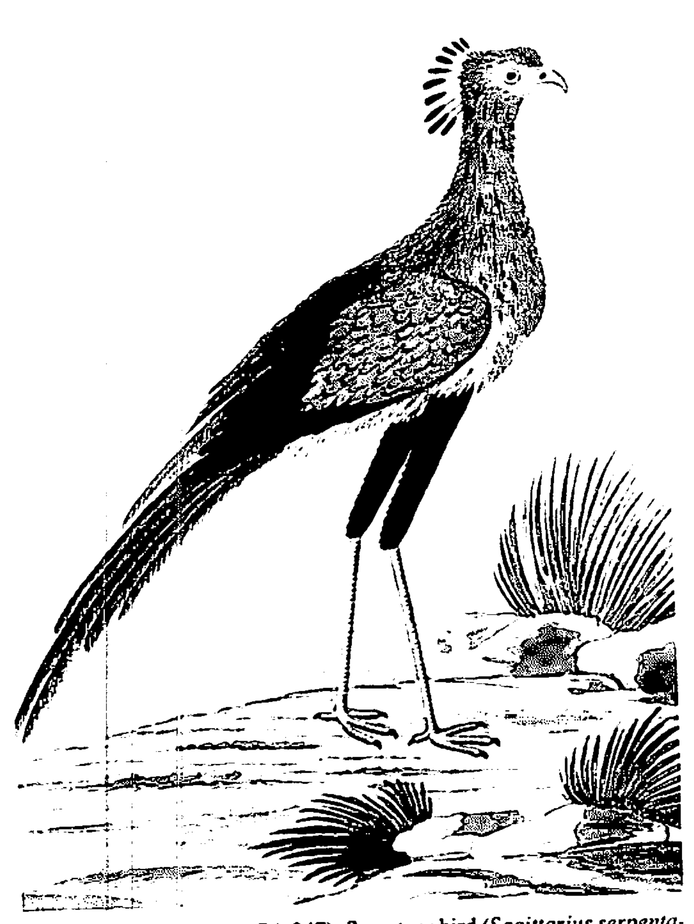


Fig. 157 Gordon Atlas (GA 247): Secretary bird *(Sagittarius serpentarius)*.

39. Sagittarius serpentarius (Miller, 1779) Secretarybird
(Falconiformes: Sagittariidae)

Drawings: GA 247, FC 32, B 54, UBL 184, RMNH 12, Yale 23.
Localities: Gordon 17, 83. Sparrman 13. Thunberg 3, 13. Levaillant 61.
Specimens: J.R.Forster (2 living in England, 1775). Raye (1827, no.23). Holthuysen (Lichtenstein 1793:3, no.21). Boers 1797:8, no.4.
References: Forster 1844:396. Miller 1779, pl.38; 1796, pl.38. Levaillant, Ois.Afr. 25 (1798). Sonnerat 1776:87, pl.50. Thunberg ms. (10.7.3).

Miller made his drawing after one of two specimens brought alive to England by J.R.Forster. The fate of the birds after their death is not recorded.

40. Neophron percnopterus (Linnaeus, 1758) Egyptian vulture
(Falconiformes: Accipitridae)

Drawings: PA 41, UBL 151, 165, RMNH 9, Yale 27.
Localities: Levaillant 3, 51, 58.
Specimens: Temminck (1807:6, no.2). Holthuysen (Lichtenstein 1793:2, no.20). RMNH Leiden (see 12.19, Schlegel 1862d). Royal Society, London (from J.R.Forster).
References: Levaillant, Ois.Afr. 14 (1796-97). Forster 1844:42. Thunberg ms. (10.7.3).

41. Gyps coprotheres (Forster, 1798) Cape vulture
(Falconiformes: Accipitridae)

Drawings: GA 244, UBL 5, RMNH 6, 7, KB 2, RPK 2, Yale 2.
Localities: Gordon 11, 15, 43, 52, 86.
Specimens: Levaillant, Ois.Afr. 10 (1796-97).

The current name was given by Forster in his German translation of the *Oiseaux d'Afrique*. Winterbottom (1965:91) restricted the type locality to Cape Town.

42. Torgos tracheliotos (Forster, 1796) Lappetfaced vulture
(Falconiformes: Accipitridae)

Drawings: UBL 234, RMNH 4, 5, Yale 25, frontispiece in set of Ois.Afr. (see 12.4.3).
Localities: Levaillant 70.
Specimens: RMNH Leiden (see 12.19, Schlegel 1862d:9).
References: Levaillant, Ois.Afr. 9 (1796-97); 1795,III, pl.facing p.316.

Levaillant (1795,III:405) referred to this vulture in his travels. J.R.Forster (1796:362), in his German translation, named it *Vultur tracheliotos*. Clancey (1980:33) dated this description 1791, which was corrected by Bruins (1968) and again, with the correct spelling *tracheliotos*, by Rookmaaker (1986b). Winterbottom (1965:91) restricted the type locality to Great Namaqualand. The specimen in the RMNH Leiden was listed by Schlegel (1862d:91): '6. Tête montée ... voyage de Le Vaillant.' This may be the one depicted on RMNH 5 from Raye's collection, although it could not be located in Raye (1827).

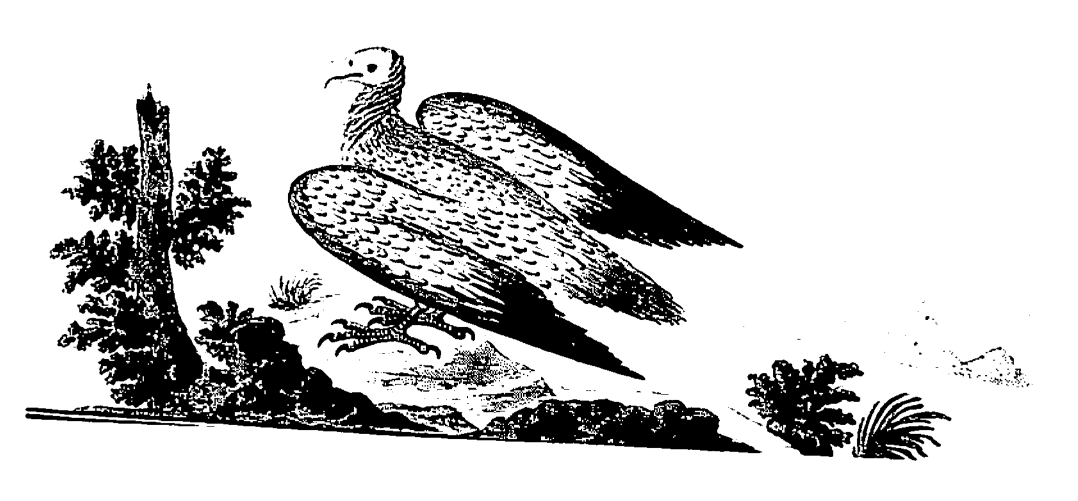


Fig. 158 Gordon Atlas (GA 244): Cape vulture *(Gyps coprotheres)*.

43. Milvus migrans (Boddaert, 1783) Yellowbilled kite
subspecies: *M.m.parasitus* Daudin, 1800
(Falconiformes: Accipitridae)
Drawings: UBL 186, RMNH 10.
Localities: Levaillant 61.
Specimens: Temminck (1807:9, no.581). Holthuysen (Lichtenstein 1793:3, no.24).
References: Levaillant, Ois.Afr. 22 (1798). Thunberg ms. (10.7.3).

The current subspecific name was based on Levaillant. The type locality of *M.m.parasitus* was taken from the *Oiseaux d'Afrique* as 'Pays des Caffres.' Grant & Mackworth-Praed (1934:109) first interpreted this as the Peddie division, Cape Province, but later they (1958:47) changed it to the 'Middle Sunday River, eastern C.P.' because Levaillant did not travel as far east as Peddie.

44. Elanus caeruleus (Desfontaines, 1789) Blackshouldered kite
(Falconiformes: Accipitridae)
Drawings: GA 246, PA 46, UBL 30, RMNH 17, KB 8.
Specimens: Temminck (1807:9, no.583). Raye (1827, no.16). Boers (1797:8, no.8).
References: Levaillant, Ois.Afr. 36, 37 (1798-99).

45. Pernis apivorus (Linnaeus, 1758) Honey buzzard
(Falconiformes: Accipitridae)
References: Levaillant, Ois.Afr. 19 (1798).

Daudin (1800,II:164) named the bird on plate 19 of the *Oiseaux d'Afrique* as *Falco* [= *Buteo*] *tachardus*. A.Smith (1830:381, 1834:286) used the same name in the combination *Buteo tachardus* while describing specimens of the mountain buzzard. This led to a recent nomenclatorial discussion. Brooke (1974), unaware of Daudin's proposal, suggested that the correct name of the South African mountain buzzard was *Buteo t. tachardus* A.Smith, 1830, with selected type locality Knysna. James & Wattel (1983a,b) argued that Smith's name is preoccupied by *Buteo tachardus* Vieillot, 1823 [= *Buteo tachardus* Vieillot, 1816 = *Falco tachardus* Daudin, 1800]. According to them, the mountain buzzard of South Africa should be called *Buteo oreophilus trizonatus* Rudebeck, 1957 – changed to *Buteo trizonatus* by Clancey et al. (1987:6).

This entire discussion could have been avoided. A.Smith merely used the wrong name for his specimens or he identified them incorrectly. Hence, his name *Buteo tachardus* has no status in nomenclature. It may be noted that Des Murs (1862) advanced an argument similar to that mentioned above by James & Wattel. Des Murs described a specimen of the South African mountain buzzard collected in 1818 by Pierre Antoine Delalande (1787-1823). He noted that Levaillant's 'Tachard' of plate 19 was *Pernis apivorus*, and that Smith (1830) described the mountain buzzard with a name earlier applied to Levaillant's bird; therefore he called the specimen in front of him by a new name: *Buteo Delalandi* Des Murs (1862:52).

46. Aquila verreauxii Lesson, 1830 Black eagle
(Falconiformes: Accipitridae)
Drawings: GA 239, UBL 67, Yale 18.
Localities: Gordon 30. Levaillant 24.
Specimens: Raye (1827, no.10).
References: Levaillant, Ois.Afr. 6 (1796).

The bird depicted on Ois.Afr. 6 is considered indeterminate.

47. Hieraaetus pennatus (Gmelin, 1788) Booted eagle
(Falconiformes: Accipitridae)
Drawing: GA 241.

48. Lophaetus occipitalis (Daudin, 1800) Longcrested eagle
(Falconiformes: Accipitridae)
Drawings: UBL 99, KB 41, Yale 19.
Locality: Levaillant 26.
References: Levaillant, Ois.Afr. 2 (1796).

The current name was based on Levaillant. Clancey (1980:37) gave its type locality as 'Auteniquoi Country = George district, southern Cape.'

There has been some argument recently about the actual position of the 'Pays d'Auteniquoi' often mentioned by Levaillant. Vincent (1984:219) showed that earlier authors took this place to be synonymous with the Knysna district of the southern Cape province. Hence, 'Knysna' was the type locality of a relatively large number of bird species. Clancey (1980) changed these localities to 'George district' in most, but not all, relevant cases. Clancey (1985:278) explained that his decision was based on the historical gazetteer by Skead (1973:174). Rookmaaker (1986a) showed that it is indeed most accurate to identify Levaillant's 'Pays d'Auteniquoi' as 'the immediate vicinity of George.' It is true that with the little distance separating Knysna and George, this argument seems to be quite academic. It would be good, however, to reach a consensus and to choose one of three possibilities: (1) to identify the 'Pays d'Auteniquoi' as Knysna (Vincent 1984); (2) to identify it as George (Clancey 1980); or (3) as the 'George/Knysna district, southern Cape' (Clancey 1985). Historically, the second choice

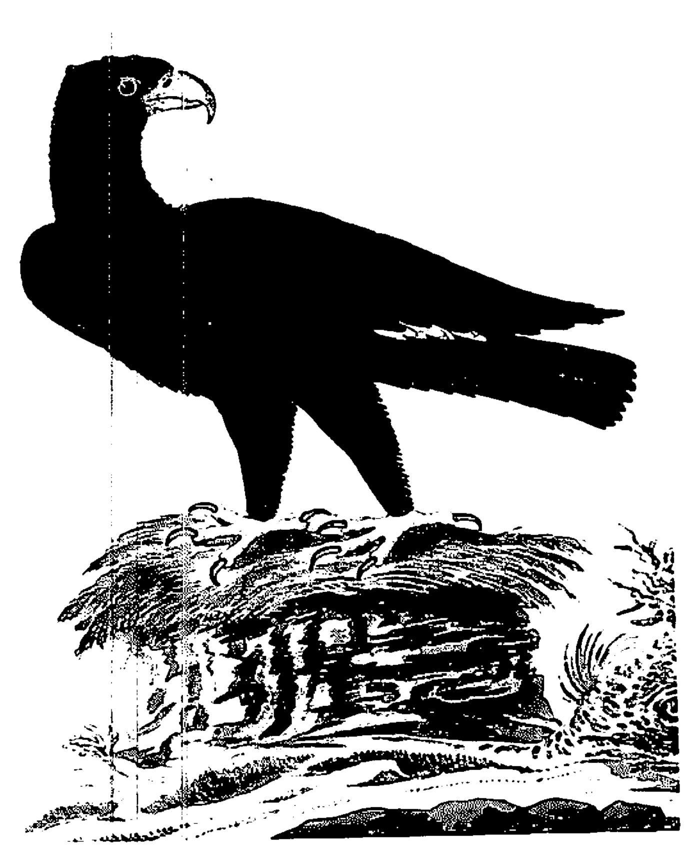


Fig. 159 Gordon Atlas (GA 239): Black eagle *(Aquila verreauxii)*.

is preferable, but one of the others applied consistently is equally acceptable.

It may be added that in the case of almost all species concerned, we are talking about *selected* type localities as opposed to actual ones. There is no way of knowing where Levaillant collected the specimens with which he returned to France, or which ones he used for his descriptions and plates. For instance, Levaillant recorded the presence of the eagle shown on plate 2 not only in the 'Pays d'Auteniquoi' but also in the eastern Cape Province. Levaillant probably had several specimens in Europe, and it would be conceivable that all were collected in the eastern Cape. The selection of the type locality 'Pays d'Auteniquoi' is certainly justified, but it is not the only possible choice. The historical record therefore is insufficient to provide a guideline when one has to choose between Knysna and George.

49. Polemaetus bellicosus (Daudin, 1800) Martial eagle
(Falconiformes: Accipitridae)
Drawings: UBL 201, Yale 24.
Locality: Levaillant 64.
References: Levaillant, Ois.Afr. 1 (1796).

The current name was based on the description by Levaillant.

50. Stephanoaetus coronatus (Linnaeus, 1766) Crowned eagle
(Falconiformes: Accipitridae)
Drawings: RMNH 2, RPK 4, Yale 7.
Specimens: Temminck (1807:8, no.1). RMNH Leiden (see 12.19, Schlegel 1862b:5).
References: Levaillant, Ois.Afr.3 (1796).

According to Schlegel (1862b:5), the specimen in the RMNH was the male figured by Levaillant. While this may be correct, it is not clear on which information this is based.

51. Terathopius ecaudatus (Daudin, 1800) Bateleur
(Falconiformes: Accipitridae)
Drawings: GA 242, UBL 28, RMNH 3, RPK 3, KB 7, Yale 5,6.
Specimen: Temminck (1807:8, no.3).
References: Levaillant, Ois.Afr. 7,8 (1796-97).

The current name was based on the description by Levaillant. The type locality was selected as the 'Pays d'Auteniquoi' (Clancey 1980:39).

52. Haliaeetus vocifer (Daudin, 1800) Fish eagle
(Falconiformes: Accipitridae)
Drawings: GA 243, UBL 37, 38, RMNH 1, KB 13, 14, Yale 8.
Locality: Levaillant 14.
Specimens: Raye (1827, no.11).
References: Levaillant, Ois.Afr. 4 (1796).

The current name was based on the description by Levaillant. Its type locality, the 'Keurbooms River' was taken from Levaillant (1790,I:100-102) and is a river which flows into Plettenberg Bay.

53. Buteo rufofuscus (Forster, 1798) Jackal buzzard
(Falconiformes: Accipitridae)
Specimens: Raye (1827, no.18). Boers 1797:8, no.5.
References: Levaillant, Ois.Afr.16 (1796-97)

The bird was first named in Forster's German edition of the *Oiseaux d'Afrique*. Winterbottom (1965:91) restricted the type locality to Cape Town.

54. Accipiter minullus (Daudin, 1800) Little sparrowhawk
(Falconiformes: Accipitridae)
References: Levaillant, Ois.Afr. 34 (1798).

The current name was based on the description by Levaillant. Clancey (1980:40) selected the type locality as the Gamtoos River.

55. Accipiter tachiro (Daudin, 1800) African goshawk
(Falconiformes: Accipitridae)
Drawing: UBL 29.
References: Levaillant, Ois.Afr. 24 (1798).

The current name was based on the description by Levaillant.

56. Micronisus gabar (Daudin, 1800) Gabar goshawk
(Falconiformes: Accipitridae)
Drawings: UBL 150.
References: Levaillant, Ois.Afr. 33 (1798).

The current name was based on the description by Levaillant. Grant & Mackworth-Praed (1934:111) restricted the type locality to the Zwart River in the Graaff Reinet division. This may be retained, although Levaillant did not mention this species from that place.

57. Melierax canorus (Thunberg, 1799) Pale chanting goshawk
(Falconiformes: Accipitridae)
Drawings: UBL 31, Yale 9.
~~*Locality*: Levaillant 10.~~
Specimens: Holthuysen (Lichtenstein 1793:3, no.26 – indeterminate).

Winterbottom (1971:66) drew attention to the dissertation of 1799 presented to Thunberg, with the incorrect reference to its 1801 reprint. The correct citation was given by Rookmaaker (1986b). Amadon (in Stresemann & Amadon 1979:323), fol-

lowed by Clancey et al. (1987:7), claimed that the student Rislachi should be credited with the name *Falco canorus*. This unfortunate proposal was discussed in 10.5.2. Clancey (1972:167) restricted the type locality to the 'Great Karoo, Cape.' The description in Lichtenstein (1793:3) may be this species, but due to obscurities it is considered indeterminate.

58. Circus ranivorus (Daudin, 1800) African marsh harrier
(Falconiformes: Accipitridae)
Drawing: RMNH 11.
References: Levaillant, Ois.Afr. 23 (1798).

The current name was based on the description by Levaillant. Winterbottom (1965:91) selected the type locality 'Duiwenhoks River, Swellendam district' from the places mentioned in the *Oiseaux d'Afrique*.

59. Circus maurus (Temminck, 1828) Black harrier
(Falconiformes: Accipitridae)
References: Levaillant, Ois.Afr., text to pl.23 (1798) – the attribution is not certain.

60. Falco biarmicus Temminck, 1825 Lanner
(Falconiformes: Accipitridae)
Drawing: GA 245.

61. Falco chicquera Daudin, 1800 Rednecked falcon
(Falconiformes:Accipitridae)
References: Levaillant, Ois.Afr. 30 (1798).

Levaillant only knew this falcon from India, but it was later also recorded in South Africa.

62. Falco tinnunculus Linnaeus, 1758 Common kestrel
subspecies: *F.t. rupicolus* Daudin, 1800
(Falconiformes: Accipitridae)
Drawings: GA 240, UBL 149.
References: Levaillant, Ois.Afr. 35 (1798). Thunberg ms. (10.7.3).

The subspecific name was based on the description by Levaillant.

63. Francolinus sp. Francolins
(Galliformes: Phasianidae)
Localities: Levaillant 1, 4, 8, 44, 50, 64.

It is likely that the various species of *Francolinus* were confused by the earlier authors. Some of the identifications given for the next four species may not be accurate.

64. Francolinus africanus Stephens, 1829
Greywing francolin
(Galliformes: Phasianidae)
Drawing: UBL 7.
Localities: Sparrman 13. Paterson 7.

65. Francolinus levaillantii (Valenciennes, 1825)
Redwing francolin
(Galliformes: Phasianidae)
Drawing: UBL 9.
Locality: Paterson 7.
Specimens: Boers (1797:28, no.242).

66. Francolinus capensis (Gmelin, 1789) Cape francolin
(Galliformes: Phasianidae)
Drawings: GA 304, FC 135, B 36, PA 44, UBL 18.
Localities: Gordon 15, 25, 27, 37, 50, 62, 77, 90. Masson 3, 18. Sparrman 13. Thunberg 40. Paterson 5, 7, 37. Levaillant 9, 16, 42, 60.
Specimens: Raye (1827, no.914). Holthuysen (Lichtenstein 1793:38, no.344).
References: G.Forster 1777,II:551. Forster 1844:400. Thunberg ms. (10.7.3).

67. Francolinus afer (Statius Müller, 1776)
Rednecked francolin
(Galliformes: Phasianidae)
Drawings: B 39, UBL 24.
Localities: Masson 18. Sparrman 19. Levaillant 12.
Specimens: Royal Society, London (from Masson). Temminck (1807:157, no.258). Boers (1797:27, no.238). Edinburgh Museum (from Dufresne).

68. Coturnix coturnix (Linnaeus, 1758) Common quail
(Galliformes: Phasianidae)
Drawing: UBL 8
Localities: Gordon 25, 62. Masson 18. Thunberg 14.
Specimens: Temminck (1807:160, no.265). Raye (1827, no.925).
References: Thunberg ms. (10.7.3).

69. Numida meleagris (Linnaeus, 1758)
Helmeted guineafowl
subspecies: *N.m.coronata* Gurney, 1868
(Galliformes: Numididae)
Drawings: GA 305, UBL 197, KB 23.
Localities: Gordon 13, 26, 77, 79, 101. Sparrman 31. Levaillant 19.
Specimens: Raye (1827, no.898).
References: Thunberg ms. (10.7.3).

70. Guttera pucherani (Hartlaub, 1860) Crested guineafowl
(Galliformes: Numididae)
Drawing: UBL 198.
Specimens: Raye (1827, no.900).

71. Turnix hottentotta (Temminck, 1815)
Hottentot buttonquail
(Gruiformes: Turnicidae)
Drawing: GA 302.

Temminck (1815:636) included some data provided by Levaillant in his description of this species. There were also two specimens collected by Levaillant in Temminck's collection, but I am unable to locate these in Temminck (1807).

72. Bugeranus carunculatus (Gmelin, 1789) Wattled crane
(Gruiformes: Gruidae)
Drawings: GA 319, B 56, FC 115.
Localities: Gordon 7.
References: Forster 1844:47, no 55

73. Anthropoides paradisea (Lichtenstein, 1793) Blue crane
(Gruiformes: Gruidae)
Drawings: GA 318, 320.
Localities: Gordon 20, 26.
Specimens: Holthuysen (Lichtenstein 1793:28, no.283).
References: Thunberg ms. (10.7.3), 1818a.

The species was first described by Lichtenstein after a specimen in the collection of L.F.Holthuysen.

74. Balearica regulorum (Bennett, 1833)
Southern crowned crane
(Gruiformes: Gruidae)
Drawings: GA 316.
Specimens: Temminck (1807:164, no.186).
References:Thunberg ms. (10.7.3).

75. Rallus caerulescens Gmelin, 1789 Cape rail
(Gruiformes: Rallidae)
Drawings: FC 129, FG 13.

Specimens: Temminck (1807:177, 264, no.246). Holthuysen (Lichtenstein 1793:34, no.318). Edinburgh Museum (from Dufresne).
References: Forster 1844:50. Thunberg ms. (10.7.3).

76. Amaurornis flavirostris (Swainson, 1837) Black crake
(Gruiformes: Rallidae)
Drawings: GA 336, PA 88, FC 132, UBL 247.
References: Forster 1844:400, Thunberg ms. (10.7.3).

77. Sarothrura rufa (Vieillot, 1819) Redchested flufftail
(Gruiformes: Rallidae)
Specimens: Temminck (1807:179, no.248).

78. Sarothrura affinis (A.Smith, 1828) Striped flufftail
(Gruiformes: Rallidae)
Drawings: UBL 119, 120.

79. Porphyrio porphyrio (Latham, 1801) Purple gallinule
(Gruiformes: Rallidae)
Drawings: PA 43, B 49.
References: Forster 1844:49, Thunberg ms. (10.7.3).

80. Gallinula chloropus (Linnaeus, 1758) Moorhen
subspecies: *G.c.meridionalis* (Brehm, 1831)
(Gruiformes: Rallidae)
Drawings: PA 87, UBL 241.
Localities: Levaillant 72.
Specimens: Raye (1827, nos. 1053, 1054).
References: Thunberg ms. (10.7.3).

81. Fulica cristata Gmelin, 1789 Redknobbed coot
(Gruiformes: Rallidae)
Drawing: B 35.
Localities: Thunberg 42.
References: Thunberg ms. (10.7.3).

82. Ardeotis kori (Burchell, 1822) Kori bustard
(Gruiformes: Otididae)
Drawings: B 57, IPA 388.
Localities: Gordon 7, 11, 23, 26.

83. Neotis denhami (Children, 1826) Stanley's buzzard
(Gruiformes: Otididae)
Drawing: UBL 93.
Localities: Levaillant 27.
Specimens: Raye (1827, no.975).

84. Eupodotis cafra (Lichtenstein, 1793)
Whitebellied korhaan
(Gruiformes: Otididae)
Specimens: Holthuysen (Lichtenstein 1793:36, nos.328, 329).

85. Eupodotis caerulescens (Vieillot, 1820) Blue korhaan
(Gruiformes: Otididae)
Drawings: UBL 118
Localities: Levaillant 27, 32.
Specimens: Temminck (1807:162, no.225). Raye (1827, no.976). RMNH Leiden (see 12.19, Schlegel 1865:4).

In the account of the first expedition, Levaillant (1790,II:374) mentioned this 'Cannepetière d'une nouvelle espèce.' Sonnini (1804,V:100-101) referred to it as 'Outarde bleuâtre' on the basis of that passage. Levaillant gave a specimen to Temminck and it was listed in Temminck (1807:162): 'Otis coerulescens. La cannepetière bleuâtre, ou l'ardoisée, Pays des Caffres.' No description was added, probably because the species was already known from Levaillant and Sonnini. The name here could be considered a *nomen nudum*. Later, Temminck (1832, pl.532) gave more details, with the same name '*Otis caerulescens* Temm.': 'Le Vaillant a découvert cette espèce dans l'intérieur de l'Afrique méridionale: elle habite le pays des Caffres et quelques parties de la colonie du Cap de Bonne Espérance.' Temminck knew two specimens, one in the Paris Museum, the other then in the RMNH (from his own collection). The latter was listed by Schlegel (1865:4): '1. Mâle adulte'; and I saw it there in 1983.

86. Eupodotis afra (Linnaeus, 1758) Black korhaan
(Gruiformes: Otididae)
Drawings: GA 309, PA 90, FC 133, 134, IPA 387, 394, AM 20.
Localities: Gordon 9, 11, 13, 56. Thunberg 1, 3, 21, 26. Sparrman 13.
Specimens: Temminck (1807:161, no.224). Holthuysen (Lichtenstein 1793:36, no.327). RMNH Leiden (see 12.19, Schlegel 1865:6). Joseph Banks (from Masson). Royal Society, London (from Forster).
References: Forster 1844:50. Thunberg ms. (10.7.3).

87. Rostratula benghalensis (Linnaeus, 1758) Painted snipe
(Charadriiformes: Rostratulidae)
Drawings: GA 329, 330, 331, 332, PA 83, B 44.
Specimens: Royal Society, London (from Masson).
Localities: Thunberg 1,41.
References: Thunberg ms. (10.7.3).

88. Haematopus ostralegus Linnaeus, 1758
European oystercatcher
(Charadriiformes: Rostratulidae)
Drawings: IPA 369, AM 14.
References: Thunberg ms. (10.7.3).

89. Charadrius pecuarius Temminck, 1823 Kittlitz's plover
(Charadriiformes: Charadriidae)
Specimens: Temminck (1807:173, 262, no.230).

Temminck (1807:262) said that he received the specimen from Levaillant, with locality 'Pays des Namaquois.' In the description of *Charadrius pecuarius*, Temminck (1823, pl.183) again acknowledged that this animal was among those 'dont les voyages de M. Le Vaillant ont enrichi les cabinets d'histoire naturelle.' In 1823, he gave the locality as 'environs du Cap de Bonne Espérance.' One might suggest that the specimen came from Namaqualand as proposed in 1807.

90. Charadrius tricollaris Vieillot, 1818
Threebanded plover
(Charadriiformes: Charadriidae)
Drawings: GA 328.
Specimens: Temminck (1807:173, no.229).

91. Vanellus coronatus (Boddaert, 1783) Crowned plover
(Charadriiformes: Charadriidae)
Drawings: PA 47 (?).
Localities: Sparrman 13.
Specimens: Temminck (1807:173, no.227). Holthuysen (Lichtenstein 1793:33, no.308). RMNH Leiden (see 12.19, Schlegel 1865:63, from Levaillant).
References: Thunberg ms. (10.7.3).

The specimens owned by Holthuysen and Temminck might have been received from Levaillant. Probably the latter is the one now in the RMNH. Drawing PA 47 cannot be identified with certainty.

92. Vanellus armatus (Burchell, 1822) Blacksmith plover
(Charadriiformes: Charadriidae)
Localities: Gordon 14.

The identification of this bird, mentioned but not named in

Gordon's journal, is not certain.

93. Tringa nebularia (Gunnerus, 1767) Greenshank
(Charadriiformes: Scolopacidae)
Drawings: GA 335.

94. Calidris ferruginea (Pontoppidan, 1763) Curlew sandpiper
(Charadriiformes: Scolopacidae)
Drawings: GA 327, PA 84, FC 118, FG 12.
Specimens: Royal Society, London (4 from Forster). Joseph Banks (from Masson).
References: Forster 1844:48.

95. Gallinago nigripennis Bonaparte, 1839 Ethiopian snipe
(Charadriiformes: Scolopacidae)
Drawings: GA 333, 334.
Localities: Paterson 37. Levaillant 45.
Specimens: Edinburgh Museum (from Dufresne).
References: Thunberg ms. (10.7.3).

General indication of 'snipes' probably indicated this bird. The name *Scolopax capensis* was also used generally for other kinds of waterfowl.

96. Recurvirostra avosetta Linnaeus, 1758 A avocet
(Charadriiformes: Recurvirostridae)
Drawings: GA 326, PA 93, IPA 395, AM 21, 25 (b).
References: Thunberg ms. (10.7.3).

97. Himantopus himantopus (Linnaeus, 1758) Blackwinged stilt
(Charadriiformes: Recurvirostridae)
Drawings: GA 324, 325, B 43.

98. Smutsornis africanus (Temminck, 1807) Doublebanded courser
(Charadriiformes: Glareolidae)
Specimens: Temminck (1807:175, 263, no.228).

Temminck (1807:175) described *Cursorius africanus* from a specimen received from Levaillant: 'le courte-vite à double collier d'Afrique, Pays des Namaquois (mâle).' The place where Levaillant collected the bird is unknown and could be either south or north of the Orange River. Irwin (1963:2) restricted the type locality 'arbitrarily' to 'Pofadder, Great Bushmanland.'

99. Glareola nordmanni Nordmann, 1842 Blackwinged pratincole
(Charadriiformes: Glareolidae)
Drawing: GA 264.

100. Larus dominicanus Lichtenstein, 1823 Kelp gull
(Charadriiformes: Laridae)
References: Forster 1844:47.

101. Hydroprogne caspia (Pallas, 1770) Caspian tern
(Charadriiformes: Laridae)
Drawing: UBL 131.

102. Sterna hirundo (Linnaeus, 1758) Common tern
(Charadriiformes: Laridae)
Drawings: UBL 2 (identity uncertain)
Specimens: Raye (1827, no.117).
References: Thunberg ms. (10.7.3).

103. Anous stolidus (Linnaeus, 1758) Common noddy
(Charadriiformes: Laridae)
References: Thunberg ms. (10.7.3).

104. Pterocles namaqua (Gmelin, 1789) Namaqua sandgrouse
(Pteroclediformes: Pteroclididae)
Drawings: GA 298, 299, 303, PA 48, B 37, 38, 41, UBL 10, 121, 158, 159, TC 757, IPA 351, SAPL-Z9.
Localities: Gordon 74. Levaillant 4, 34, 55.
Specimens: Temminck (1807:154, no.262). Raye (1827, nos. 901, 902, 908, 909). Edinburgh Museum (from Dufresne). Royal Society, London (from Masson).

The Namaqua sandgrouse occurs throughout the Cape Province except in the southern coastal belt. Apparently it was confused with the doublebanded sandgrouse (*P.bicinctus*) found in the N.W. Cape Province. On GA 298-302 the French names in the captions appear to distinguish the 'gélinotte à longue queue' (= *namaqua*) and the 'gélinotte à collier' (= *bicinctus*). The Dutch text to the same drawings calls them all 'namaqua patrijs.' UBL 121 brings more confusion in calling the bird 'gélinotte à collier à longue queue.' Clancey (1959:236) restricted the type locality to the lower Orange River, N.W. Cape Province.

105. Pterocles bicinctus Temminck, 1815 Doublebanded sandgrouse
(Pteroclediformes: Pteroclididae)
Drawings: GA 300, 301.
Specimens: Temminck (1807:154, no.263).

106. Columba guinea Linnaeus, 1758 Rock pigeon
(Columbiformes: Columbidae)
Drawings: RMNH 51, TC 759(b), IPA 353(b), 401, AM 12.
Specimens: Temminck (1807:140, no.620).
References: Levaillant, Ois.Afr. 265 (1808). Forster 1844:62. Sonnerat 1774a:467, pl.I f.2; 1782:179.

RMNH 51 may have depicted Temminck's specimen. Vincent (1949:149) restricted the type locality to Houtbay on the basis of notes by A.Smith recorded by Roberts (1935c).

107. Columba arquatrix Temminck & Knip, 1809 (=1808) Rameron pigeon
(Columbiformes: Columbidae)
Specimens: Temminck (1807:141, 249, no.526). RMNH Leiden (see 12.19, Schlegel 1873:72).
References: Levaillant, Ois.Afr. 264 (1808). Sonnerat 1774a:466, pl.I f.1.

Temminck's specimen probably was collected by Levaillant, although it was catalogued by Temminck between 1799 and 1807. The type locality of the species is the 'Pays d'Auteniquoi' mentioned by Temminck (1807) and Levaillant. The description of *Columba arquatrix* in the book by Temminck & Knip appeared in its third installment (Colombes 1) which was dated 1808, not 1809, in Stresemann (1953b:103). This is historically sensible. Levaillant's treatment of the bird also appeared in 1808, but after the text by Temminck, who said 'On sera sans doute étonné de me voir décrire les moeurs de quelques Pigeons africains *avant* mon ami Le Vaillant, qui publie l'Histoire des oiseaux découverts par lui dans cette partie du monde' (Temminck & Knip 1808:12, my italics).

108. Streptopelia capicola (Sundevall, 1857) Cape turtle dove
(Columbiformes: Columbidae)
Drawings: UBL 208, IPA 375.
Localities: Thunberg 16. Gordon 62.
References: Levaillant, Ois.Afr. 268 text (1808).

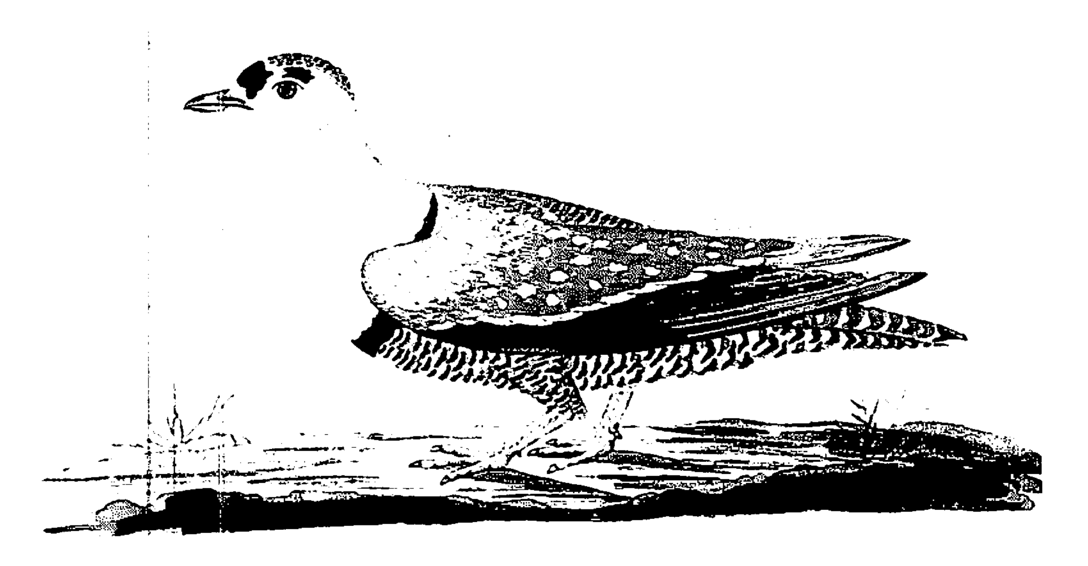


Fig. 160 Gordon Atlas (GA 301): Double-banded sandgrouse *(Pterocles bicinctus)*.

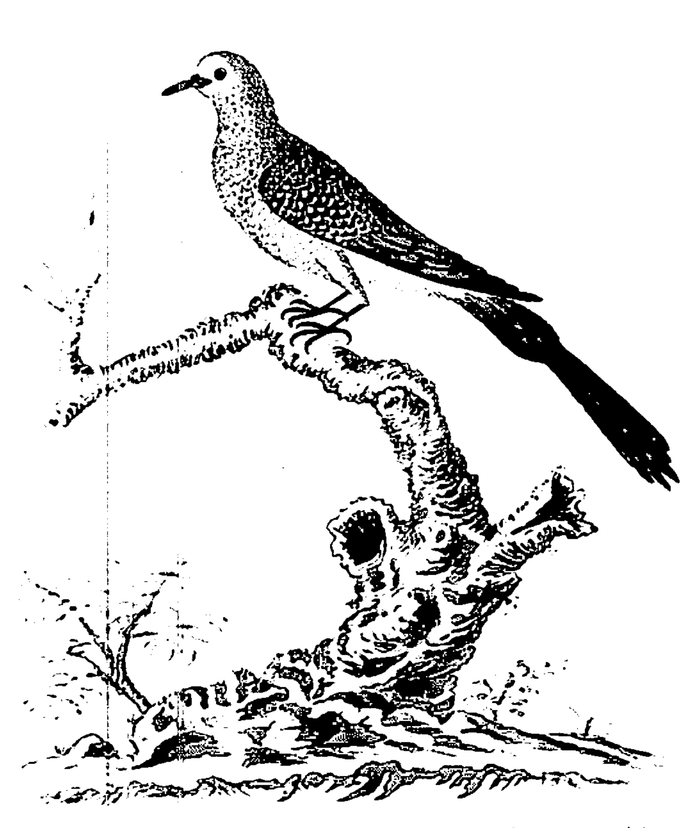


Fig. 161 Gordon Atlas (GA 297): Namaqua dove *(Oena capensis)*.

109. Streptopelia senegalensis (Linnaeus, 1766) Laughing dove
(Columbiformes: Columbidae)
Localities: Thunberg 40.
References: Levaillant, Ois.Afr. 270 (1808). Thunberg ms. (10.7.3).

110. Oena capensis (Linnaeus, 1766) Namaqua dove
(Columbiformes: Columbidae)
Drawings: GA 295, 296, 297, PA 67, TC 759(a), 761, IPA 352(a,b), 353(a), 401, AM 11, 25D, SAPL-Z13(a), 14, SAM 128, 130.
Specimens: Temminck (1807:141, no.326). Raye (1827, nos. 939, 940). Edinburgh Museum (from Dufresne).
Localities: Thunberg 29.
References: Levaillant, Ois.Afr. 273-275 (1808). Thunberg ms. (10.7.3).

111. Turtur chalcospilos (Wagler, 1827) Greenspotted dove
(Columbiformes: Columbidae)
Drawing: UBL 145.
Specimens: Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 271 (1808).

112. Turtur tympanistria (Temminck & Knip, 1810 [=1809]) Tambourine dove
(Columbiformes: Columbidae)
Drawings: UBL 48.
Specimens: Temminck (1807:144, 249, no.325).
References: Levaillant, Ois.Afr. 272 (1804).

Levaillant found this dove in various places in the eastern Cape, including near the Gamtoos River, which was selected the type locality (Clancey 1966, 1980:91). Temminck said that he received one specimen from Levaillant and that it occurred in southern Africa 'vers le Pays des Caffres' in the description of *Columba tympanistria* (Temminck & Knip 1809:80, pl.36). The specimen went to the RMNH Leiden (Schlegel 1873:143). Maybe the locality 'Pays d'Auteniquoi' found in Temminck (1807) is not correct. The date of the publication by Temminck & Knip should be changed from 1810 to 1809 (Stresemann 1953b:103, Rookmaaker 1986b).

113. Aplopelia larvata (Temminck & Knip, 1810 [=1809]) Cinnamon dove
(Columbiformes: Columbidae)
Specimens: Temminck (1807:144, 254, no.319).
References: Levaillant, Ois.Afr. 269 (1808).

Levaillant found this dove in the 'Pays d'Auteniquoi' which was selected the type locality given as 'George, southern Cape' (Clancey 1980:91). Temminck described and depicted a specimen collected by Levaillant as *Columba larvata* in Temminck & Knip (1809:71, pl.31). The specimen went to the RMNH Leiden where Schlegel (1873:161) listed it as an 'individu dans le livrée de passage.' The text by Temminck appeared in 1809, not 1810 (Rookmaaker 1986b, following Stresemann 1953b:103).

114. Poicephalus robustus (Gmelin, 1788) Cape parrot
(Psittaciformes: Psittacidae)
Drawings: UBL 58, KB 26.
Localities: Levaillant 24, 28.
Specimens: Raye (1827, no.853). Holthuysen (Lichtenstein 1793:6, nos. 64, 65). Boers (1797:11; not certain).
References: Levaillant, Perroquets 130, 131 (1804-05).

Grant & Mackworth-Praed (1942:14) fixed the type locality as the 'eastern Cape Province' on the basis of the 'Cafferland' in Lichtenstein (1793).

115. Agapornis roseicollis (Vieillot, 1817) Rosyfaced lovebird
(Psittaciformes: Psittacidae)
Drawings: GA 289, UBL 177, 178.
Localities: Levaillant 62, 63.
Specimens: Raye (1827, no.856). Holthuysen (Lichtenstein 1793:7).

Levaillant (1795,II:290, 357) found the lovebird north of the Orange River. Rookmaaker (1983d) showed that Gordon was the first to distinguish this species without indicating whether he saw it north or south of the Orange River.

116. Tauraco corythaix (Wagler, 1827) Knysna lourie
(Musophagiformes: Musophagidae)
Drawings: GA 288, PA 45, B 58, UBL 23, 228, KB 6, Yale 4.
Localities: Gordon 19, 40. Levaillant 12, 28, 67.
Specimens: Raye (1827, nos. 873, 874). Boers (1797:15, nos.100, 101).
References: Levaillant 1797-98,I, plate facing p.159; Promerops (Couroucous) 16 (1813-18). Thunberg ms. (10.7.3). Forster 1844:42.

The type locality was taken from the 'Pays d'Auteniquoi' recorded by Levaillant, interpreted as 'George, southern Cape' (Clancey 1980:96).

117. Cuculus canorus Linnaeus, 1758 European cuckoo
(Cuculiformes: Cuculidae)
Drawing: UBL 63.

118. Cuculus gularis Stephens, 1815 African cuckoo
(Cuculiformes: Cuculidae)
Drawing: UBL 61.
Specimens: Temminck (1807:58, no.26). Raye (1827, no.721).
References: Levaillant, Ois.Afr. 200, 201 (1806). Thunberg ms. (10.7.3).

The current name was based on the description by Levaillant. The type locality was taken from Levaillant, the 'Camdeboo' or 'Graaff Reinet district, Cape' (Clancey 1980:99).

119. Cuculus solitarius Stephens, 1815 Redchested cuckoo
(Cuculiformes: Cuculidae)
Drawings: PA 49, UBL 60, KB 28.
References: Levaillant, Ois.Afr. 206 (1806).

The current name was based on the description by Levaillant. The type locality was taken from the same place, 'Caffraria' or 'eastern Cape' (Clancey 1980:100).

120. Cuculus clamosus Latham, 1801 Black cuckoo
(Cuculiformes: Cuculidae)
Drawing: UBL 83.
Specimens: Temminck (1807:59, no.25). Raye (1827, no.737). Holthuysen (Lichtenstein 1793, no.155). RMNH Leiden (see 12.19, Schlegel 1864:1).
Localities: Levaillant 24, 25.
References: Levaillant, Ois.Afr. 204, 205 (1806).

Latham (1801:xxx) described *Cuculus clamosus* based on a reference to this bird in Levaillant's first Voyage, English edition 'ed.8vo.II, p.6' (= 1790,II:199). Levaillant mentioned it from the country of the Gonaquois, which is the type locality interpreted as 'Cradock Division, C.P.' by Grant & Mackworth-Praed (1936:116).

121. Clamator levaillantii (Swainson, 1829) Striped cuckoo
(Cuculiformes: Cuculidae)
References: Levaillant, Ois.Afr. 209 (1806 – bird not seen in the Cape Province).

122. Clamator jacobinus (Boddaert, 1783) Jacobin cuckoo
Two subspecies: *C.j.jacobinus* (Boddaert, 1783) and *C.j.serratus* (Sparrman, 1786).
(Cuculiformes: Cuculidae)
Drawings: GA 291, 292, RMNH 34, 35.
Specimens: Raye (1827, nos. 726, 727). Holthuyzen (Lichtenstein 1793, nos. 153, 154). Temminck (1807:60, no.23).
References: Levaillant, Ois.Afr. 207, 208 (1806). Sparrman 1786, no.3. Thunberg ms. (10.7.3).

123. Chrysococcyx klaas (Stephens, 1815) Klaas's cuckoo
(Cuculiformes: Cuculidae).
Drawings: PA 69, UBL 97, KB 39.
Specimens: Temminck (1807:60, no. 1054).
References: Levaillant, Ois.Afr. 212 (1806).

The current name of this bird was based on the description by Levaillant. His account provided the type locality, the Plat River in Graaff Reinet division (Clancey 1980:102). Levaillant collected only one male. Maybe this was the one preserved by Temminck supposing that Levaillant gave it to him after he wrote his text (published in 1806).

124. Chrysococcyx caprius (Boddaert, 1783) Diederik cuckoo
(Cuculiformes: Cuculidae)
Drawings: UBL 62, 96, KB 29, Yale 17.
Localities: Levaillant 24, 31.
Specimens: Joseph Banks (from Masson). Temminck (1807:59, no.425). Holthuysen (Lichtenstein 1793, nos. 161, 162). Boers (1797:15, no.104). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 210, 211 (1806). Thunberg ms. (10.7.3).

125. Centropus bengalensis (Gmelin, 1788) Black coucal
subspecies *C.b.grillii* Hartlaub, 1861
(Cuculiformes: Cuculidae)
Drawings: RMNH 37.
Specimens: Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 220 (1807).

The black coucal is only known as a rare migrant in the Cape Province. Maybe Levaillant was lucky to collect a few such specimens?

126. Centropus superciliosus Hemprich & Ehrenberg, 1833 Burchell's coucal
subspecies *C.s.burchellii* Swainson, 1837.
(Cuculiformes: Cuculidae)
Localities: Levaillant 16.
References: Levaillant, Ois.Afr. 219 (1806).

127. Tyto capensis (A.Smith, 1834) Grassowl
(Strigiformes: Tytonidae)
Drawings: RMNH 19.

128. Otus senegalensis (Swainson, 1837) Scops owl
(Strigiformes: Strigidae)

Specimens: Temminck (1807:19, no.720).
References: Levaillant, Ois.Afr. 40 text (1799).

129. Bubo capensis A.Smith, 1834 Cape eagle owl
(Strigiformes: Strigidae)
Drawings: PA 40.

130. Bubo africanus (Temminck, 1823) Spotted eagle owl
(Strigiformes: Strigidae)
Drawings: UBL 187, RMNH 18.
Specimens: Temminck (1807:18, no.315).
References: ? Levaillant, Ois.Afr. 39 (1799 – species indeterminate).

131. Caprimulgus sp. Nightjars
(Caprimulgiformes: Caprimulgidae)
Drawings: PA 58, UBL 34, KB 11, 27, RMNH 26, 27, Yale 31, 32, AM 13.
Localities: Levaillant 24.
Specimens: Temminck (1807:137, no.608). Holthuysen (Lichtenstein 1793, no.496).
References: Levaillant, Ois.Afr. 49 (1799).

The nightjars are a difficult group to identify unless the birds are in the hand. The various drawings could depict either the European nightjar, *Caprimulgus europaeus* Linnaeus, 1758, or the fierynecked nightjar, *Caprimulgus pectoralis* Cuvier, 1816. The latter name was based on Levaillant and described in a very short note: '*C.pectoralis*, id.ib.49' [= *C.pectoralis*, Cuvier, Vaill.Afr.49] (Cuvier 1816:376). The type locality as shown by Clancey (1980:108) is inaccurate: 'Africa = Knysna, southern Cape'. Cuvier did not give 'Africa', and the 'Pays d'Auteniquoi', meant with Knysna was changed in other cases to 'George, southern C.P.'

132. Apus caffer (Lichtenstein, 1823) Whiterumped swift
(Apodiformes: Apodidae)
Localities: Levaillant 24.
References: Levaillant, Ois.Afr. 244 f.1 (1807).

The bird described by Levaillant is considered indeterminate.

133. Apus melba (Linnaeus, 1758) Alpine swift
subspecies: *A.m.africanus* (Temminck, 1815)
(Apodiformes: Apodidae)
References: Levaillant, Ois.Afr.243 (1807)

134. Colius striatus Gmelin, 1789 Speckled mousebird
(Coliiformes: Coliidae)
Drawings: GA 285, PA 70, TC 765, IPA 350(b), 397.
Specimens: Temminck (1807:97, no.183). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 256 (1808). Thunberg ms. (10.7.3).

135. Colius colius (Linnaeus, 1766) Whitebacked mousebird
(Coliiformes: Coliidae)
Drawings: GA 286, TC 767, IPA 350(a).
Specimens: Raye (1827, nos. 410, 411). Holthuysen (Lichtenstein 1793:42, no.389). Boers (1797:30). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 257 (1808). Thunberg ms. (10.7.3).

136. Urocolius indicus (Latham, 1790) Redfaced mousebird
(Coliiformes: Coliidae)
Drawings: PA 60.
Specimens: Temminck (1807:97, 217, no. 162). Holthuysen (Lichtenstein 1793:42, no.391).
References: Levaillant, Ois.Afr. 258 (1808).

The type locality (Gamtoos River) was selected from the description by Levaillant.

137. Apaloderma narina (Stephens, 1815) Narina trogon
(Trogoniformes: Trogonidae)
Drawings: GA 287, 290, UBL 43, 44, RMNH 41, 42, KB 18, Yale 12, 13.
Specimens: Temminck (1807:55, 206, no.29). Raye (1827, no.778). Boers (1797:11).
References: Levaillant, Ois.Afr. 228, 229 (1807), Promerops (Couroucous) 10, 11 (1813-18). Thunberg ms. (10.7.3).

The current name of this bird was taken from the description by Levaillant. The type locality from the same source is the 'Pays d'Auteniquoi' or 'George, southern Cape' (Clancey 1980:115).

138. Ceryle rudis (Linnaeus, 1758) Pied kingfisher
(Coraciiformes: Halcyonidae)
Drawing: GA 249.
Specimens: Joseph Banks (from Masson). Holthuysen (Lichtenstein 1793:20, no.208). Boers (1797:17).
References: Thunberg ms. (10.7.3).

139. Ceryle maxima (Pallas, 1769) Great kingfisher
(Coraciiformes: Halcyonidae)
Drawing: IPA 396.
Specimens: Holthuysen (Lichtenstein 1793:20, nos. 203, 204). Boers (1797:18, no.136). Edinburgh Museum (from Dufresne).

140. Alcedo semitorquata Swainson, 1823
Halfcollared kingfisher
(Coraciiformes: Halcyonidae)
Drawings: UBL 78, KB 34.
Specimens: Boers (1797:18, no.135).

141. Alcedo cristata Pallas, 1764 Malachite kingfisher
(Coraciiformes: Halcyonidae)
Drawing: PA 82.
Specimens: Joseph Banks (from Masson). Boers (1797:17, nos. 122, 123).

142. Halcyon albiventris (Scopoli, 1786)
Brownhooded kingfisher
(Coraciiformes: Halcyonidae)
Drawings: UBL 100, 101, KB 42.
Localities: Levaillant 16, 26.
Specimens: Temminck (1807:70, 214, no.210).

143 Merops apiaster Linnaeus, 1758 European bee-eater
(Coraciiformes: Meropidae)
Drawings: PA 56 , UBL 128, 129, TC 755, IPA 349(a), SAPL-Z10.
Localities: Thunberg 16. Levaillant 62.
Specimens: Raye (1827, nos.593, 594). Boers (1797:18, nos. 138, 139). Joseph Banks (from Masson).
References: Levaillant, Promerops (Guêpiers) 1, 2 (1813). Thunberg ms. (10.7.3).

144. Merops superciliosus Linnaeus, 1766 Olive bee-eater
(Coraciiformes: Meropidae)
Drawing: UBL 227.
References: Levaillant, Promerops (Guêpiers) 19 (1813-18).

145. Merops pusillus Statius Müller, 1776 Little bee-eater
subspecies *M.p.meridionalis* Sharpe, 1892.
(Coraciiformes: Meropidae)
References: Levaillant, Promerops (Guêpiers) 17 (1813-18).

146. Merops hirundineus Lichtenstein, 1793
Swallowtailed bee-eater
(Coraciiformes: Meropidae)
Drawings: PA 68, UBL 190.

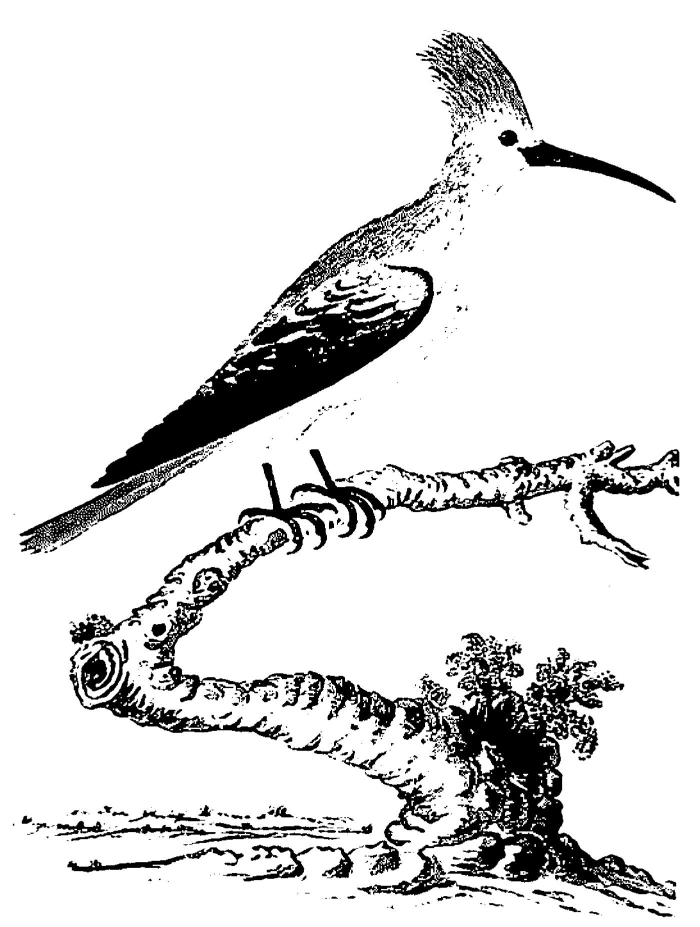


Fig. 162 Gordon Atlas (GA 278): Hoopoe *(Upupa epops)*.



Fig. 163 Crowned hornbill *(Tockus alboterminatus)*, drawing RMNH 46, similar to Levaillant, *Oiseaux d'Afrique*, pl.234.

Localities: Levaillant 62.
Specimens: Temminck (1807:72, no.105). Raye (1827, nos. 600-602). Holthuysen (Lichtenstein 1793:20, no.213).
References: Levaillant, Promerops (Guêpiers) 8 (1813).

One of the 85 specimens collected by Levaillant may have served for the first description by Lichtenstein (1793:20). He did not add a locality. Meise & Stresemann (1950:25) selected the 'Orange River, S.Africa' as type locality.

147. Coracias garrulus Linnaeus, 1758 European roller
(Coraciiformes: Coraciidae)
Drawings: GA 250, 251.
References: Thunberg ms. (10.7.3).

148. Coracias caudata Linnaeus, 1766 Lilacbreasted roller
(Coraciiformes: Coraciidae)
Drawings: UBL 226.
Localities: Levaillant 66.
Specimens: Temminck (1807:44, no.449). Raye (1827, nos. 466, 467).
References: Levaillant, Ois.Paradis, I, 25 (1802).

Levaillant said that he only collected one specimen. Those in the collections of Temminck and Raye maybe came from another source, if in fact they belonged to this species.

149. Coracias naevia Daudin, 1800 Purple roller
(Coraciiformes: Coraciidae)
References: Levaillant, Ois.Paradis, I, 27-29 (1802).

Maybe the specimen of *C.bengalensis* in the Paris Museum (12.15) belonged to this species.

150. Upupa epops Linnaeus, 1758 Hoopoe
subspecies: *U.e.minor* Shaw, 1812
(Coraciiformes: Upupidae)
Drawings: GA 278.
Specimens: Temminck (1807:73, no.210). Raye (1827, no.485). Holthuysen (Lichtenstein 1793:21, no.215). Boers (1797:19, no.143). Edinburgh Museum (from Dufresne). Joseph Banks (from Masson).
References: Levaillant, Promerops 22, 23 (1809-13). Thunberg ms. (10.7.3). Miller 1776, pl.6; 1796, pl.6.

151. Phoeniculus purpureus (Miller, 1784)
Redbilled woodhoopoe
(Coraciiformes: Phoeniculidae)
Drawings: PA 57, UBL 109, KB 43.
Localities: Levaillant 28, 63.
Specimens: Temminck (1807:73, no.99). Holthuysen (Lichtenstein 1793:22, nos. 219, 220).
References: Levaillant, Promerops (part 1), 1-3 (1807). Miller 1784 (part 9), pl.52.

The plate and description of *Promerops purpureus* by Miller in the 9th part of his *Icones* (1784) was from a now unknown

specimen, with the locality indicated as 'India, and Africa'. Levaillant did not specifically record it from the 'Pays d'Auteniquoi', but one suspects that is the reason for its type locality given as 'Knysna' = ? George.

152. Phoeniculus cyanomelas (Vieillot, 1819) Scimitarbilled woodhoopoe
(Coraciiformes: Phoeniculidae)
Drawings: UBL 191, 192.
Specimens: Temminck (1807:74, 217, no.100). Raye (1827, no.486). Boers (1797:19, no.147). Edinburgh Museum (from Dufresne).
References: Levaillant, Promerops (part 1), 5-6 (1807).

153. Tockus alboterminatus (Büttikofer, 1889) Crowned hornbill
subspecies: *T.a.australis* (Roberts, 1932).
(Coraciiformes: Bucerotidae)
Drawings: UBL 154, 155, RMNH 46.
Localities: Levaillant 28.
Specimens: Temminck (1807:38, no.98). Holthuysen (Lichtenstein 1793:8, no.90). RMNH Leiden (see 12.19, Schlegel 1862a:12).
References: Levaillant, Ois.Afr. 234, 235 (1807).

Levaillant mentioned the hornbill twice in his travels. While staying near the Little Fish River, he (1790,II:351) mentioned 'une nouvelle espèce de calao.' Later, Levaillant (1795,II:180) seemed to recall this incident. He received a request from Temminck about the hornbill and Levaillant was happy to oblige him, because the bird 'est si farouche, si méfiant, si difficile à approcher, qu'il sera nécessairement toujours très-rare dans les cabinets. Pendant tout mon premier voyage, je n'avois été qu'une seule fois à portée d'en tirer un; c'étoit dans le pays d'Auteniquoi.' In the *Oiseaux d'Afrique*, the extreme rarity of the bird is not mentioned. It would occur between the Brak rivers in the west and the eastern Cape. There were plates of two different specimens, a male and a young female. Plate 234 of the male resembles drawing RMNH 46 of the crowned hornbill, possibly the animal recorded by Temminck. His specimen went to the RMNH Leiden (Schlegel 1862a:12).

It is necessary to discuss Levaillant's confused statements because they may affect our interpretation of the description of a 'new' hornbill by Lichtenstein (1793) from a specimen in the collection of Holthuysen. The passage about *Buceros melanoleucos* can here be given translated into English: 'A new black and white hornbill from Cafferland with a red beak of 4¾ inch (12 cm) length. The casque on the top of the beak has the same colour and it is 3¾ inch (9,5 cm) long. The tail feathers are shining black, with white on the edges. The two middle tail-feathers are totally black, the others have white on the tip. Feet and nails are black, the total length is 2 feet 2 inches (66 cm); the tail is 1 foot (30 cm) long' (Lichtenstein 1793:8).

This description was usually referred to the crowned hornbill, until Roberts (1935a:96-97) wrote: 'the rest of the description fits the Trumpeter Hornbill (Bycanistes bucinator (Temminck, 1824)), also a bird from Kaffraria, eastern Cape Province. Change the word 'rubro' (red) to 'nigro' (black) and there can be no element of doubt that the trumpeter hornbill is intended.' This argument is quite beyond the permissible. Most early descriptions are vague enough that substituting a single word changes the identity of the species. Lichtenstein wrote 'red' not 'black' and we assume that he knew the difference between the two colours. However, it is true that there are some uncertainties about this passage and we cannot know where Holthuysen obtained his specimen. We may follow Meise & Stresemann (1950:25) and others in regarding Lichtenstein's *Buceros melanoleucos* as indeterminate.

154. Lybius torquatus (Dumont, 1816) Blackcollared barbet
(Piciformes: Capitonidae)
Drawings: UBL 209.
Localities: Levaillant 65.
Specimens: Temminck (1807:56, no.92). Raye (1827, no.750). Joseph Banks (from Masson).
References: Levaillant. Ois.Paradis, II 19 (1804).

155. Tricholaema leucomelas (Boddaert, 1783) Pied barbet
(Piciformes: Capitonidae)
Drawings: GA 269, UBL 53, KB 22.
Localities: Levaillant 19 (specific identity uncertain).
Specimens: Temminck (1807:56, no.92). Raye (1827, no.769). Edinburgh Museum (from Dufresne). Boers (1797:14, no.92).
References: Levaillant, Ois.Paradis, II 29-31 (1806). Thunberg ms. (10.7.3).

The pied barbet was described by Buffon (1783,VII, pl.688 f.1) as 'Tamatia noir et blanc' and by Latham (1782,I(2):502) as a variety of the black-throated barbet from the Cape of Good Hope. The type locality was restricted to the 'Cape Flats' (Macdonald 1957:88, Clancey 1959:246, 1968).

156. Pogoniulus pusillus (Dumont, 1816) Redfronted tinker barbet
(Piciformes: Capitonidae)
Drawings: UBL 53, KB 22.
Localities: Levaillant 24.
Specimens: Temminck (1807:56, no.89). Raye (1827, no.763). RMNH Leiden (see 12.19, Goffin 1863:40).
References: Levaillant, Ois.Paradis, II 32 (1806).

157. Trachyphonus vaillantii Ranzani, 1821 Crested barbet
(Piciformes: Capitonidae)
References: Levaillant, Promerops (part 1) 32 (1813).

The current name was based on the description by Levaillant. Mackworth-Praed & Grant (1955) restricted the type locality to the Ham River in South Namibia, which may be more accurate than the S.E. Cape Province proposed by Vincent (1935:94).

158. Indicator indicator (Sparrman, 1777) Greater honeyguide
(Piciformes: Indicatoridae)
Drawings: GA 261, UBL 64, 65.
Localities: Gordon 92. Levaillant 24.
Specimens: Temminck (1807:56, no.91). Raye (1827, no.747). Holthuysen (Lichtenstein 1793:14, no.158). RMNH Leiden (see 12.19).
References: Levaillant, Ois.Afr. 241 f.1 (1807). Sparrman 1777a, 1783:591. Thunberg ms. (10.7.3). Miller 1777/78, pl.24A; 1796, pl.24A.

159. Indicator variegatus Lesson, 1830 Scalythroated honeyguide
(Piciformes: Indicatoridae)
Drawings: UBL 65.
References: Levaillant, Ois.Afr. 241 f.2 (1807).

The type locality was restricted to the 'Pays d'Auteniquoi' (Grant & Mackworth-Praed 1938). This should be interpreted as George, not Knysna (Clancey 1980:131).

160. Indicator minor Stephens, 1815 Lesser honeyguide
(Piciformes: Indicatoridae)
Drawings: UBL 66.
Specimens: Raye (1827, no.748).
References: Levaillant, Ois.Afr. 242 (1807).

The current name was based on the description by Levaillant. Grant & Mackworth-Praed (1938:118) selected the type locality as the 'Zwartkops River, Uitenhage division, C.P.'

161. Geocolaptes olivaceus (Gmelin, 1788) Ground woodpecker
(Piciformes: Picidae)
Drawings: GA 281, UBL 135, 136.
Localities: Levaillant 42.
Specimens: Temminck (1807:65, no.81). Raye (1827, no.715). Boers (1797:16, no.114).
References: Levaillant, Ois.Afr. 254, 255 (1808). Thunberg ms. (10.7.3).

162. Campethera notata (Lichtenstein, 1823) Knysna woodpecker
(Piciformes: Picidae)
References: Levaillant, Ois.Afr. 250 (1808).

163. Dendropicos fuscescens (Vieillot, 1818) Cardinal woodpecker
(Piciformes: Picidae)
Drawings: GA 258, UBL 106.
Specimens: Temminck (1807:65, no.78). Raye (1827, no.698). Boers (1797:16, no.115).
References: Levaillant, Ois.Afr. 253 (1808).

The current name was based on the description by Levaillant. The type locality was taken as Grootvadersbos (Clancey 1980:136), which is close to the 'Rivière Duivenhok' mentioned by Temminck (1807:65).

164. Thripias namaquus (Lichtenstein, 1793) Bearded woodpecker
(Piciformes: Picidae)
Specimens: Temminck (1807:65, 213, no.154). Raye (1827, no.710). Holthuysen (Lichtenstein 1793:17, nos. 179, 180).
References: Levaillant, Ois.Afr. 251, 252 (1808).

165. Mesopicos griseocephalus (Boddaert, 1783) Olive woodpecker
(Piciformes: Picidae)
Specimens: Temminck (1807:63, no.79). Raye (1827, nos. 701, 702). Holthuysen (Lichtenstein 1793:16, nos. 175, 176).
References: Levaillant, Ois.Afr. 248, 249 (1808). Forster 1844:43. Thunberg ms. (10.7.3).

166. Mirafra sp. Larks
(Passeriformes: Alaudidae)
Localities: Gordon 21, 26, 60.

Gordon just said that he saw 'leeuwerikken' (= larks).

167. Mirafra apiata (Vieillot, 1816) Clapper lark
(Passeriformes: Alaudidae)
Specimens: Raye (1827, no.310).
References: Levaillant, Ois.Afr. 194 (1806).

The current name was based on the description by Levaillant. It is antedated by *Alauda percutiens* Wilkes, 1808. The 'Swartland, Malmesbury district, south-western Cape' was selected the type locality (Clancey 1980:140).

168. Certhilauda curvirostris (Hermann, 1783) Longbilled lark
(Passeriformes: Alaudidae)
Specimens: Raye (1827, no.311). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 192 (1806). Thunberg ms. (10.7.3).

169. Calandrella cinerea (Gmelin, 1789) Redcapped lark
(Passeriformes: Alaudidae)
Specimens: Temminck (1807:120, no.268).
References: Levaillant, Ois.Afr. 199 (1806).

Macdonald (1952a:29) mentioned some of the history of this species.

170. Galerida magnirostris (Stephens, 1826) Thickbilled lark
(Passeriformes: Alaudidae)
References: Levaillant, Ois.Afr. 193 (1806).

The current name was based on the description by Levaillant. It is antedated by *Alauda rostro-crassa* Wilkes, 1808 with the same source.

171. Hirundo rustica Linnaeus, 1758 European swallow
(Passeriformes: Hirundinidae)
Localities: Thunberg 5.
References: Thunberg ms. (10.7.3).

172. Hirundo cucullata Boddaert, 1783 Greater striped swallow
(Passeriformes: Hirundinidae)
Specimens: Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 245 f.1 (1807). Forster 1844:54.

173. Hirundo fuligula Lichtenstein, 1842 Rock martin
(Passeriformes: Hirundinidae)
Drawings: GA 252.
Localities: Gordon 53.
References: Levaillant, Ois.Afr. 246 f.1 (1807).

174. Riparia riparia Linnaeus, 1758 Sand martin
(Passeriformes: Hirundinidae)
References: Thunberg ms. (10.7.3 – possibly using Linnaeus's name for another similar species).

175. Riparia paludicola (Vieillot, 1817) Brownthroated martin
(Passeriformes: Hirundinidae)
References: Levaillant, Ois.Afr. 246 f.2 (1807).

The current name was based on the description by Levaillant. Mackworth-Praed & Grant (1963,II:349) restricted the type locality to the Cape Peninsula.

176. Psalidoprocne holomelas (Sundevall, 1850) Black sawwing swallow
(Passeriformes: Hirundinidae)
References: Levaillant, Ois.Afr. 244 f.2 (1807).

The bird on Levaillant's plate cannot be identified with certainty.

177. Campephaga flava Vieillot, 1817 Black cuckooshrike
(Passeriformes: Campephagidae)
Drawing: UBL 45.
Specimens: Temminck (1807:114, no.45). Holthuysen (Lichtenstein 1793:15, no.163). Edinburgh Museum (from Dufresne). Boers (1797:30, no.271).
References: Levaillant, Ois.Afr. 164, 165 (1805).

The current name was based on the description by Levaillant. He thought that the birds of plates 164 and 165 represented different species, while in fact they are the female and the male of the black cuckooshrike. Vieillot (1817,X:49) on the same page gave two names, i.e. *Campephaga flava* to pl.164 and *C.nigra* to pl.165. I am uncertain who acted as first reviser, but

can record that Bonaparte (1850,I:353) and Layard (1867) used *nigra* rather than *flava*. Clancey (1966:422) selected the Gamtoos River as the type locality. The description by Lichtenstein (1793:15) of a specimen of *Cuculus sulphuratus* appears to be valid (Meise & Stresemann 1950:24).

178. Coracina caesia (Lichtenstein, 1823) Grey cuckooshrike
(Passeriformes: Campephagidae)
Drawings: UBL 46.
Specimens: Temminck (1807:114, no.43).
References: Levaillant, Ois.Afr. 162, 163 (1805).

179. Dicrurus adsimilis (Bechstein, 1794) Forktailed drongo
(Passeriformes: Dicruridae)
Drawings: PA 51, UBL 49.
Specimens: Raye (1827, no.166). Holthuysen (Lichtenstein 1793:10, no.99).
References: Levaillant, Ois.Afr. 167, 168 (1805).

Mackworth-Praed & Grant (1942:61) took the type locality from the account of Levaillant, i.e. Duiwenhoks River, Swellendam district.

180. Oriolus oriolus (Linnaeus, 1758) European golden oriole
(Passeriformes: Oriolidae)
Drawings: PA 63, 64.
Specimens: Holthuysen (Lichtenstein 1793:12, nos. 129, 130). Boers (1797:13, no.79).
References: Thunberg ms. (10.7.3).

181. Oriolus auratus Vieillot, 1817 African golden oriole
(Passeriformes: Oriolidae)
Specimens: Raye (1827, no.238).
References: Levaillant, Ois.Afr. 260 (1808).

The current name was based on the description by Levaillant.

182. Oriolus larvatus Lichtenstein, 1823 Blackheaded oriole
(Passeriformes: Oriolidae)
Drawings: PA 50, UBL 17.
Specimens: Temminck (1807:46, 203, no.141). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 261, 262 (1808).

The name *Oriolus africanus* Wilkes, 1820 based on Levaillant antedates the current one.

183. Corvus capensis Lichtenstein, 1823 Black crow
(Passeriformes: Corvidae)
Localities: Thunberg 25.
Specimens: Temminck (1807:40, no.345). Boers (1797:12, no.59). RMNH Leiden (see 12.19, Schlegel 1867:27).
References: Levaillant, Ois.Afr. 52 (1800). Thunberg ms. (10.7.3).

184. Corvus albus (Statius Müller, 1776) Pied crow
(Passeriformes: Corvidae)
Drawings: UBL 212.
Specimens: Temminck (1807:39, no.6).
References: Levaillant, Ois.Afr. 53 (1800).

185. Corvus albicollis Latham, 1790 Whitenecked raven
(Passeriformes: Corvidae)
Drawings: GA 248, UBL 152, RMNH 27, Yale 26, IPA 373, AM 19.
Localities: Gordon 13, 56. Levaillant 51.
Specimens: Temminck (1807:40, no.6). Holthuysen (Lichtenstein 1793:9, no.93). RMNH Leiden (see 12.19).
References: Levaillant, Ois.Afr. 50 (1800). Forster 1844:42. Thunberg ms. (10.7.3).

186. Parus afer Gmelin, 1789 Southern grey tit
(Passeriformes: Paridae)
References: Levaillant, Ois.Afr. 139 f.1 (1804). Thunberg ms. (10.7.3).

187. Parus cinerascens Vieillot, 1818 Ashy tit
(Passeriformes: Paridae)
Specimens: Temminck (1807:133, no.167).
References: Levaillant, Ois.Afr. 138 (1801-04).

The current name was based on the description by Levaillant. He recorded it from the Camdeboo, but it is now unknown that far south. The type locality was restricted to Pelladrift, lower Orange River (Clancey 1958).

188. Parus niger Vieillot, 1818 Southern black tit
(Passeriformes: Paridae)
Specimens: Raye (1827, no.321). Boers (1797:35, no.333).
References: Levaillant, Ois.Afr. 137 (1801-04). Sonnerat 1774b:468, pl.II fig.1; 1782:206.

The current name was based on the description by Levaillant. He also provided the type locality, selected as the Sundays River (Clancey 1964).

189. Anthoscopus minutus (Shaw & Nodder, 1812) Cape penduline tit
(Passeriformes: Remizidae)
References: Levaillant, Ois.Afr. 134 (1801-04).

Macdonald (1952b:47) restricted the type locality to Heerenlogement because it was found there by Levaillant.

190. Lioptilus nigricapillus (Vieillot, 1818) Bush blackcap
(Passeriformes: Timaliidae)
Drawings: UBL 54.
Specimens: Raye (1827, no.185).
References: Levaillant, Ois.Afr. 108 (1801-04). Thunberg ms. (10.7.3).

The current name was based on the description by Levaillant. He also provided the type locality, Bruintjeshoogte, near Somerset East (Clancey 1965, 1980:170).

191. Pycnonotus capensis (Linnaeus, 1766) Cape bulbul
(Passeriformes: Pycnonotidae)
Drawing: GA 266.
Specimens: Temminck (1807:88, no.136).
References: Levaillant, Ois.Afr. 105 (1801-04). Thunberg ms. (10.7.3).

192. Pycnonotus nigricans (Vieillot, 1818) Redeyed bulbul
(Passeriformes: Pycnonotidae)
References: Levaillant, Ois.Afr. 106 f.1 (1801-04).

The current name was partly based on the description by Levaillant.

193. Phyllastrephus terrestris Swainson, 1837 Terrestrial bulbul
(Passeriformes: Pycnonotidae)
References: Levaillant, Ois.Afr. 112 f.1 (1801-04).

The current name was based on the description by Levaillant.

194. Andropadus importunus (Vieillot, 1818) Sombre bulbul
(Passeriformes: Pycnonotidae)
References: Levaillant, Ois.Afr. 106 f.2 (1801-04).

The current name was based on the description by Levaillant.

195. Turdus olivaceus Linnaeus, 1766 Olive thrush
(Passeriformes: Turdidae)

Specimens: Temminck (1807:91, no.903). Raye (1827, no.200). Holthuysen (Lichtenstein 1793:41, no.373).
References: Levaillant, Ois.Afr. 98, 99, 100 (1801-04). Thunberg ms. (10.7.3).

196. Monticola rupestris (Vieillot, 1818) Cape rock thrush
(Passeriformes: Turdidae)
Drawings: GA 262, UBL 125.
Localities: Levaillant 41.
Specimens: Raye (1827, no.169).
References: Levaillant, Ois.Afr. 101, 102 (1801-04).

The current name was based on the description by Levaillant.

197. Monticola explorator (Vieillot, 1818) Sentinel rock thrush
(Passeriformes: Turdidae)
Specimens: Temminck (1807:89, no.137).
References: Levaillant, Ois.Afr. 103 (1801-04).

The current name was based on the description by Levaillant.

198. Oenanthe monticola Vieillot, 1818 Mountain chat
(Passeriformes: Turdidae)
Specimens: Temminck (1807:127, no.56).
References: Levaillant, Ois.Afr. 184 f.2, 185 (1806).

The currrent name was based on the description by Levaillant. It is antedated by *Motacilla montana* Wilkes, 1817.

199. Oenanthe pileata (Gmelin, 1789) Capped wheatear
(Passeriformes: Turdidae)
Drawings: GA 255, PA 72, UBL 25, TC 749, IPA 355(b), SAPL-Z11.
Specimens: Temminck (1807:127, no.53). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 181, 182 (1805-06). Forster 1844:63. Thunberg ms. (10.7.3).

200. Cercomela familiaris (Stephens, 1826) Familiar chat
(Passeriformes: Turdidae)
Drawings: FC 147b.
References: Levaillant, Ois.Afr. 183 (1806). Forster 1844:404.

The current name was based on the description by Levaillant. It is antedated by *Motacilla familiaris* Wilkes, 1817. The type locality was restricted to the Cape Peninsula (Vincent 1935:96).

201. Cercomela tractrac (Wilkes, 1817) Tractrac chat
(Passeriformes: Turdidae)
References: Levaillant, Ois.Afr. 184 f.1 (1806).

The current name was based on the description by Levaillant, and it was the only one accepted from several others published in the *Encyclopaedia Londinensis* edited by John Wilkes (see 12.4.6 d). The type locality is the 'Pays d'Auteniquoi', but it was here interpreted as 'Uniondale' (Macdonald 1957:125, Clancey 1980:180). The species was called 'Saxicola Le Vaillantii' by A.Smith in his manuscript notebook (Roberts 1935c) and later in a published work (A.Smith 1838-48, pl.28) as a synonym of *Saxicola cinerea*.

202. Myrmecocichla formicivora (Vieillot, 1818) Anteating chat
(Passeriformes: Turdidae)
Drawing: UBL 94.
Specimens Temminck (1807:128, no.54). Raye (1827, no.239).
References: Levaillant, Ois.Afr. 186, 187 (1806).

The current name was based on the description by Levaillant. It is antedated by *Motacilla formicivora* Wilkes, 1817.

203. Saxicola torquata (Linnaeus, 1766) Stonechat
(Passeriformes: Turdidae)
Drawings: PA 73, UBL 25, IPA 380.
Specimens: Temminck (1807:122, no.57). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 180 (1805).

204. Cossypha dichroa (Gmelin, 1789) Chorister robin
(Passeriformes: Turdidae)
Drawing: UBL 112.
Localities: Levaillant 28.
Specimens: Temminck (1807:88, no.132).
References: Levaillant, Ois.Afr. 104 (1801-04). Sparrman 1787, no.46. Thunberg ms. (10.7.3).

205. Cossypha caffra Linnaeus, 1771 Cape robin
(Passeriformes: Turdidae)
Drawings: GA 267, UBL 54.
Specimens: Raye (1827, no.204). Boers (1797:35, no.324).
References: Levaillant, Ois.Afr. 111 (1801-04). Forster 1844:404. Thunberg ms. (10.7.3).

206. Pogonocichla stellata (Vieillot, 1818) Starred robin
(Passeriformes: Turdidae)
Drawing: UBL 82.
Specimens: Edinburgh Museum (from Dufresne)
References: Levaillant, Ois.Afr. 157 (1805).

The current name was based on the description by Levaillant.

207. Erythropygia leucophrys (Vieillot, 1817) Whitebrowed chat
(Passeriformes: Turdidae)
Specimens: Temminck (1807:229, no.1040).
References: Levaillant, Ois.Afr. 118 (1801-04).

The current name was based on the description by Levaillant.

208. Erythropygia coryphaeus (Lesson, 1831) Karoo robin
(Passeriformes: Turdidae).
Drawings: IPA 382(a).
References: Levaillant, Ois.Afr. 120 (1801-04).

The current name probably was based on the description by Levaillant. It is antedated by *Sylvia coryphoeus* Vieillot (1817,XI:177) and *Motacilla coryphaeus* (Wilkes, 1817,XVI:77). Apparently, Vieillot's description has been overlooked, and I see no reason why he could not be credited with this name. Macdonald (1952c:90) observed that this species does not exhibit sexual dimorphism which is shown on Levaillant's plate. He proposed that the 'male' of figure 1 belonged to the nominate subspecies, with restricted type locality Uitenhage. The 'female' of fig.2 would belong to the western subspecies, *E.c.cinereus* Macdonald, 1952 with type locality Port Nolloth, Little Namaqualand.

209. Parisoma subcaeruleum (Vieillot, 1817) Titbabbler
(Passeriformes: Sylviidae)
Drawing: UBL 16
Localities: Thunberg 4.
Specimens: Temminck (1807:125, no.61).
References: Levaillant, Ois.Afr. 126 (1801-04).

The current name was based on the description by Levaillant.

210. Acrocephalus baeticatus (Vieillot, 1817) African marsh warbler
(Passeriformes: Sylviidae)
References: Levaillant, Ois.Afr. 121 f.2 (1801-04).

The current name was based on the description by Levaillant.

211. Acrocephalus schoenobaenus (Linnaeus, 1758) European sedge warbler

(Passeriformes: Sylviidae).
References: Levaillant, Ois.Afr. 122 (1801-04).

212. Bradypterus baboecala (Vieillot, 1817) African sedge warbler

(Passeriformes: Sylviidae)
Drawing: UBL 126.
References: Levaillant, Ois.Afr. 121 f.1 (1801-04).

The current name was based on the description by Levaillant. The type locality, selected as 'Pays d'Auteniquoi', was given as Knysna in Clancey (1980:197).

213. Apalis thoracica (Shaw & Nodder, 1811) Barthroated apalis

(Passeriformes: Sylviidae)
Drawing: UBL 172.
References: Levaillant, Ois.Afr. 123 (1801-04).

The current name was based on the description by Levaillant. He stated to have seen it on the Elephants River and most commonly around the Orange River. The species does not now occur in the northern Cape Province. Either its range decreased, or Levaillant was mistaken in his identification. Roberts (1929:77) suggested that the birds on the plate were procured in the east, and he selected Grahamstown as the type locality. Due to the uncertainties about Levaillant's text, later decisions may not be historically more accurate (e.g. 'Oliphants river, Uniondale division' proposed by Mackworth-Praed & Grant 1938b:528, see Lawson 1965:5).

214. Stenostira scita (Vieillot, 1818) Fairy flycatcher
(Passeriformes: Sylviidae)
Specimens: Temminck (1807:115, no.38).
References: Levaillant, Ois.Afr. 154 (1805).

The current name was based on the description by Levaillant. Clancey (1955:2) restricted the type locality to the 'Lower Orange River in the N.W. Cape Province.'

215. Sylvietta rufescens (Vieillot, 1817) Longbilled crombec
(Passeriformes: Sylviidae)
References: Levaillant, Ois.Afr. 135 (1801-04).

The current name was based on the description by Levaillant.

216. Camaroptera brachyura (Vieillot, 1820) Bleating warbler

(Passeriformes: Sylviidae)
Specimens: Boers (1797:35, no.327).
References: Levaillant, Ois.Afr. 125 (1801-04).

The current name was based on the description by Levaillant. Vieillot made a mistake. First, he (1817,XI:205) described the 'fauvette olivatre des Indes' as *Sylvia olivacea*, followed a few paragraphs later by this species with exactly the same name. He corrected this in 1820. By that time, however, priority was established by *Motacilla viridis* Wilkes, 1817.

217. Sphenoeacus afer (Gmelin, 1789) Grassbird
(Passeriformes: Sylviidae)
Drawings: GA 265, FC 154b, UBL 126.
Specimens: Joseph Banks (from Masson). Temminck (1807:89, no.68). Holthuysen (Lichtenstein 1793:4, no.47). Boers (1797:34, no.321).
References: Levaillant, Ois.Afr. 112 f.2 (1801-04). Forster 1844:406. Thunberg ms. (10.7.3).

218. Cisticola textrix (Vieillot, 1817) Clud cisticola
(Passeriformes: Sylviidae)
Drawings: Yale 33.
References: Levaillant, Ois.Afr. 131 (1801-04).

The current name was based on the description by Levaillant.

219. Cisticola fulvicapilla (Vieillot, 1817) Neddicky
(Passeriformes: Sylviidae)
References: Levaillant, Ois.Afr. 124 (1801-04).

The current name was based on the description by Levaillant. He also provided the type locality, the Camdeboo = region near Graaff Reinet (Clancey 1980:218, 1983).

220. Prinia flavicans (Vieillot, 1820) Blackchested prinia
(Passeriformes: Sylviidae)
Drawing: UBL 172.
Specimens: Temminck (1807:125, no.62). Holthuysen (Lichtenstein 1793:43, no.409).
References: Levaillant, Ois.Afr. 127 (1801-04).

The current name was based on the description by Levaillant. It is antedated by *Motacilla citrina* Wilkes, 1817.

221. Prinia maculosa (Boddaert, 1783) Spotted prinia
(Passeriformes: Sylviidae)
References: Levaillant, Ois.Afr. 129, 130 f.1 (1801-04).

222. Muscicapa adusta (Boie, 1828) Dusky flycatcher
(Passeriformes: Muscicapidae)
References: Levaillant, Ois.Afr. 156 (1805).

223. Sigelus silens (Shaw, 1809) Fiscal flycatcher
(Passeriformes: Muscicapidae)
Drawings: UBL 82.
References: Levaillant, Ois.Afr. 74 (1801).

The current name was based on the description by Levaillant.

224. Batis capensis (Linnaeus, 1766) Cape batis
(Passeriformes: Muscicapidae)
Specimens: Temminck (1807:119, no.802). Boers (1797:34, no.315).
References: Levaillant, Ois.Afr. 160 (1805). Thunberg ms. (10.7.3).

225. Batis pririt (Vieillot, 1818) Pririt batis
(Passeriformes: Muscicapidae)
Drawings: PA 74.
Specimens: Temminck (1807:118, no.515).
References: Levaillant, Ois.Afr. 161 (1805).
The current name was based on the description by Levaillant.

226. Trochocercus cyanomelas (Vieillot, 1818) Bluemantled flycatcher

(Passeriformes: Muscicapidae)
Drawings: UBL 80.
Specimens: Temminck (1807:116, no.36).
References: Levaillant, Ois.Afr. 151 (1805).

The current name was based on the description by Levaillant.

227. Terpsiphone viridis (Statius Müller, 1776) Paradise flycatcher

subspecies: *T.p.granti* (Roberts, 1948).
(Passeriformes: Muscicapidae)
Drawings: UBL 75.
Localities: Levaillant 24.
Specimens: Temminck (1807:115, no.37). Holthuysen (Lichtenstein 1793:19, no.192). Boers (1797:17, no.120).
References: Levaillant, Ois.Afr. 142, 143 (1804).

228. Motacilla aguimp Dumont, 1821 African pied wagtail
(Passeriformes: Motacillidae)
Drawings: GA 254.
Specimens: Temminck (1807:121, no.7).
References: Levaillant, Ois.Afr. 178 (1805).

The current name was based on the description by Levaillant. It is antedated by *Motacilla arenaria* Wilkes, 1817.

229. Motacilla capensis Linnaeus, 1766 Cape wagtail
(Passeriformes: Motacillidae)
Specimens: Raye (1827, no.277). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 177 (1805). Thunberg ms. (10.7.3).

230. Macronyx capensis (Linnaeus, 1766) Orangethroated longclaw
(Passeriformes: Motacillidae)
Drawings: UBL 130, IPA 390.
Specimens: Temminck (1807:121, no.267). Holthuysen (Lichtenstein 1793:40, no.365, 366). Edinburgh Museum (from Dufresne). Boers (1797:29, no.254).
References: Levaillant, Ois.Afr. 195, 196 (1806). Thunberg ms. (10.7.3).

231. Lanius collaris Linnaeus, 1766 Fiscal shrike
(Passeriformes: Laniidae)
Drawings: GA 256, UBL 72, 73.
Localities: Thunberg 16.
Specimens: Temminck (1807:14 , no.9). Raye (1827, no.42). Holthuysen (Lichtenstein 1793:4, no.30). Edinburgh Museum (from Dufresne). Boers (1797:8, no.12).
References: Levaillant, Ois.Afr. 61, 62 (1800). Thunberg ms. (10.7.3).

232. Lanius collurio Linnaeus, 1758 Redbacked shrike
(Passeriformes: Laniidae)
Specimens: Raye (1827, nos. 40, 41). Holthuysen (Lichtenstein 1793:4, no.45). Boers (1797:8, no.13).
References: Levaillant, Ois.Afr. 64 (1800).

233. Laniarius ferrugineus (Gmelin, 1788) Southern boubou
(Passeriformes: Laniidae)
Drawings: FC 41, IPA 383.
Specimens: Temminck (1807:15, no.17). Raye (1827, nos.186, 187). Holthuysen (Lichtenstein 1793:4, no.40).
References: Levaillant, Ois.Afr. 67 (1800-01). Forster 1844:290. Thunberg ms. (10.7.3).

234. Dryoscopus cubla (Shaw, 1809) Puffback
(Passeriformes: Laniidae)
Drawings: UBL 21, 71.
Specimens: Temminck (1807:16, no.19).
References: Levaillant, Ois.Afr. 72 (1800-01).

The current name was based on the description by Levaillant. The name *Lanius cubla* was published before 1809 by Latham (1801:xxx) and again by Temminck (1807:16). I cannot find a reason why the description by Latham, based on Levaillant, would not be valid. It was listed by Sherborn (1922:1670).

235. Nilaus afer (Latham, 1801) Brubru
subspecies: *N.a.brubru* (Latham, 1801).
(Passeriformes: Laniidae)
Drawings: UBL 21, 71.
Specimens: Temminck (1807:15, no.15). Raye (1827, no.47). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr. 71 (1800-01).

The current subspecific name was based on the description by Levaillant.

236. Tchagra tchagra (Vieillot, 1816) Southern tchagra
(Passeriformes: Laniidae)
Specimens: Temminck (1807:14, no.14).
References: Levaillant, Ois.Afr. 70 (1800-01).

The current name was based on the description by Levaillant.

237. Telophorus zeylonus (Linnaeus, 1766) Bokmakierie
(Passeriformes: Laniidae)
Drawings: GA 259, 260, PA 53, IPA 402, AM 16, 25A-C.
Localities: Thunberg 16.
Specimens: Temminck (1807:15, no.591). Raye (1827, nos.186, 187). Edinburgh Museum (from Dufresne). Boers (1797:29, no.261).
References: Levaillant, Ois.Afr.67 (1800-01). Thunberg ms. (10.7.3).

238. Telophorus olivaceus (Shaw, 1809) Olive bush shrike
(Passeriformes: Laniidae)
Drawings: UBL 70.
Specimens: Temminck (1807:15, no.16). Raye (1827, nos. 53, 54). Boers (1797:8, no.15).
References: Levaillant, Ois.Afr. 75, 76 f.1 (1801).

The current name was based on the description by Levaillant. His 'Baie Lagoa', selected type locality of this species, was the Plettenberg Bay (Forbes 1973:42), not Algoa Bay near Port Elizabeth.

239. Sturnus vulgaris Linnaeus, 1758 Starling
(Passeriformes: Sturnidae)
Specimens: Temminck (1807:85, no.156).
References: Thunberg ms. (10.7.3).

240. Spreo bicolor (Gmelin, 1789) Pied starling
(Passeriformes: Sturnidae)
Drawings: IPA 389, AM 9.
Localities: Thunberg 31.
Specimens: Raye (1827, no.205).
References: Levaillant, Ois.Afr. 88 (1801). Thunberg ms. (10.7.3).

241. Creatophora cinerea (Meuschen, 1787) Wattled starling
(Passeriformes: Sturnidae)
Drawings: GA 268, 271, 272, 273, UBL 124, Yale 20.
Specimens: Temminck (1807:50, no.459). Raye (1827, no.427). Boers (1797:14, no.83). Gevers (Meuschen 1787:40, no.17).
References: Levaillant, Ois.Afr. 93, 94 (1801-04), 1797-98,II,pl.facing p.245. Thunberg ms. (10.7.3). Walch 1777:9-10, pl.II.

The description was based on a specimen in the collection of Abraham Gevers (see 12.22).

242. Lamprotornis nitens (Linnaeus, 1766) Glossy starling
subspecies: *L.n.phoenicopterus* (Swainson, 1838) and *L.n.culminator* (Clancey & Holliday, 1951).
(Passeriformes: Sturnidae)
Drawings: PA 52, UBL 40, KB 16, Yale 14.
Localities: Levaillant 16.
Specimens: Temminck (1807:85, no.144). Edinburgh Museum (from Dufresne).
References: Levaillant, Ois.Afr.89 (1801).

Levaillant combined two subspecies in his account. He noted the presence of this starling in the eastern Cape Province (Gamtoos River and further east) now classified as *L.n.culminator*, and in the N.W. Cape Province which is *L.n.phoenicopterus*. The distinction between the two subspecies is made mainly on account of size, which cannot be judged accurately from the available drawings and descriptions.

Temminck (1807:85) named his specimen of this bird *Stur-*

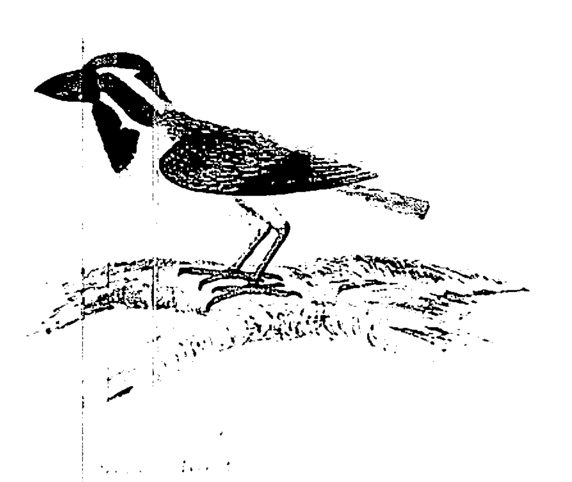


Fig. 164 Gordon Atlas (GA 269): Pied Barbet *(Tricholaema leucomelas)*.

nus nabirop. This is not a *nomen nudum*, although there is no description, because Temminck referred to Levaillant's plate 89. Temminck did not distinguish between descriptions with vernacular names or those with so-called scientific Latin names. In case Temminck's *Sturnus nabirop* will be accepted as the earliest available name for the glossy starling in South Africa, one will need to decide about the type locality. This choice will be rather arbitrary, because the historical data at present are insufficient to know where Levaillant collected that particular specimen which he gave to Temminck.

243. Onychognathus morio (Linnaeus, 1766) Redwinged starling

(Passeriformes: Sturnidae)
Drawings: GA 270, UBL 47, 127, TC 763, IPA 391, AM 15, SAPL-Z12.
Specimens: Temminck (1807:86, no.147). Raye (1827, nos.217, 218). Holthuysen (Lichtenstein 1793:41, nos. 377, 378). Boers (1797:30, no.264)
References: Levaillant, Ois.Afr. 83, 84 (1801). Thunberg ms. (10.7.3).

244. Onychognathus nabouroup (Daudin, 1800) Palewinged starling

(Passeriformes: Sturnidae)
Drawings: UBL 26, 181.
Specimens: Temminck (1807:87, no.145)
References: Levaillant, Ois.Afr. 91 (1801-04).

The current name was based on the description by Levaillant. There is a rather intriguing bibliographic problem in connection with that description. Daudin (1800,II:308) named the *Sturnus nabouroup* with reference to plate 91 in Levaillant's *Oiseaux d'Afrique*. The latter appeared in an installment supposedly issued in 1801 or later. One of the dates must be erroneous. Daudin's second volume is always dated 1800 and there is no indication that it appeared in parts (Sherborn 1922:xx and others). The dates of Levaillant's issues are not that accurately known. Maybe this installment (Plates 91-96) was published out of sequence in 1800? We may never know. Fact is that Daudin could cite Levaillant's plate number in his book of 1800.

245. Buphagus africanus Linnaeus, 1766 Yellowbilled oxpecker

(Passeriformes: Buphagidae)
Drawings: RMNH 32.
Specimens: Raye (1827, no.412).
References: Levaillant, Ois.Afr. 97 (1801-04).

246. Promerops cafer (Linnaeus, 1758) Cape sugarbird
(Passeriformes: Promeropidae)
Drawings: GA 277, UBL 27, BMNH Zoology library (drawing by W.Ellis, see 8.6).
Specimens: Joseph Banks (from Masson). Holthuysen (Lichtenstein 1793:21, no.216).
References: Levaillant, Ois.Afr. 287, 288 (1810). Forster 1844:43. Miller 1776, pl.6; 1796, pl.6. Thunberg ms. (10.7.3).

247. Nectarinia famosa (Linnaeus, 1766) Malachite sunbird
(Passeriformes: Nectariniidae)
Drawings: GA 275, PA 78.
Specimens: Temminck (1807:75, no.111). Raye (1827, nos.510, 511). Holthuysen (Lichtenstein 1793:23, no.234). Edinburgh Museum (from Dufresne). Joseph Banks (from Masson).
References: Levaillant, Ois.Afr. 289, 290 (1810). Thunberg ms. (10.7.3).

248. Nectarinia violacea (Linnaeus, 1766) Orangebreasted sunbird

(Passeriformes: Nectariniidae)
Drawings: ~~UBL 42~~.
Specimens: Temminck (1807:76, no.112).
References: Levaillant, Ois.Afr. 292 (1810). Thunberg ms. (10.7.3).

249. Nectarinia chalybea (Linnaeus, 1766) Lesser doublecollared sunbird

(Passeriformes: Nectariniidae)
Drawings: PA 79.
Specimens: Temminck (1807:75, no.116). Holthuysen (Lichtenstein 1793:23, no.229). Boers (1797:20, nos. 155, 156 and ? 157, 158).
References: Levaillant, Ois.Afr. 300 text (1812-13). Thunberg ms. (10.7.3). Sonnerat 1782,II:208, pl.116 f.1.

250. Nectarinia afra (Linnaeus, 1766) Greater doublecollared sunbird

(Passeriformes: Nectariniidae)
Drawings: GA 280, PA 81, UBL 207.
Specimens: Riksmuseet Stockholm (from Sparrman, via J.G.von Carlsson). Joseph Banks (from Masson).
References: Levaillant, Ois.Afr. 300 (1812-13). Sparrman 1788, no.58. Thunberg ms. (10.7.3).

251. Nectarinia fusca (Vieillot, 1819) Dusky sunbird
(Passeriformes: Nectariniidae)
Specimens: Temminck (1807:77, 219, no.130).
References: Levaillant, Ois.Afr. 296 (1812-13).

The current name was based on the description by Levaillant.

252. Nectarinia senegalensis (Linnaeus, 1766) Scarletchested sunbird

subspecies: *N.s.gutturalis* (Linnaeus, 1766).
(Passeriformes: Nectariniidae)
References: Levaillant, Ois.Afr. 295 f.2 (1812-13).

253. Nectarinia amethystina (Shaw, 1811) Black sunbird
(Passeriformes: Nectariniidae)
Drawings: GA 274, UBL 41, KB 17, IPA 377, 403.
Localities: Levaillant 16.
Specimens: Raye (1827, no.514).
References: Levaillant, Ois.Afr. 294 (1810).



Fig. 165 Gordon Atlas (GA 277): Cape sugarbird *(Promerops cafer)*.

The current name was based on the description by Levaillant.

254. Anthreptes collaris (Vieillot, 1819) Collared sunbird (Passeriformes: Nectariniidae)

References: Levaillant, Ois.Afr. 299 (1812-13).

The current name was based on the description by Levaillant.

255. Zosterops pallidus Swainson, 1838 Cape white-eye subspecies: *Z.p.capensis* Sundevall, 1850 and *Z.p.atmorii* Sharpe, 1877
(Passeriformes: Zosteropidae)

Drawings: GA 253.

References: Levaillant, Ois.Afr. 132 (1801-04).

The current name is antedated by *Motacilla tcheric* Wilkes, 1817, based on Levaillant. Because he saw the bird in different regions inhabited by two subspecies (given above), one would need to choose the type locality carefully but arbitrarily, if Wilkes's name is accepted.

256. Philetairus socius (Latham, 1790) Sociable weaver (Passeriformes: Ploceidae)

Drawings: UBL 235, 236, 237.

Localities: Levaillant 62, 63.

Specimens: Temminck (1807:102, 233, no.313). Boers (1797:31, no.277).

References: Paterson 1789, plate facing p.126.

257. Passer melanurus (Statius Müller, 1766) Cape sparrow (Passeriformes: Ploceidae)

Drawings: GA 263.

Specimens: Boers (1797:33, no.307).

258. Ploceus bicolor Vieillot, 1819 Forest weaver
(Passeriformes: Ploceidae)
Specimens: Temminck (1807:101, 230, no.286).

259. Ploceus velatus Vieillot, 1819 Masked weaver
(Passeriformes: Ploceidae)
Drawings: UBL 55 (?).
Specimens: Temminck (1807:49, 201, no.152). Edinburgh Museum (from Dufresne).

Mees (1970:61) showed that Vieillot's description of *Ploceus velatus* was based on the reference to these birds in Temminck (1807). He examined the type specimens (male and female) in the Leiden Museum. These are similar to the large specimens found near the Cape. Hence, he suggested that the 'Pays de Namaquois' mentioned by Temminck should be interpreted as 'southern Namaqualand' rather than the region near the Orange River. Brooke (1985) suggested that the masked weaver did not live in the western Cape Province in the 18th century, but it expanded its range from the beginning of this century. It is possible that Temminck made a mistake in the locality. Brooke designated Graaff-Reinet as the selected type locality. I am not quite certain about the bird shown on UBL 55, but may record that the bird on that drawings was said to come from the 'Rivière Sondag.'

260. Euplectes orix (Linnaeus, 1758) Red bishop
(Passeriformes: Ploceidae)
Drawings: GA 283, 284.
Localities: Masson 5. Sparrman 14. Thunberg 16, 26.
Specimens: Royal Society, London (from Forster). Temminck (1807:98, no.275). Holthuysen (Lichtenstein 1793:44, no.143).
References: Thunberg 1784; ms. (10.7.3). Forster 1844:53. Miller 1776, pl.1; 1796, pl.1.

261. Euplectes capensis (Linnaeus, 1766) Yellowrumped widow
(Passeriformes: Ploceidae)
Drawings: GA 279.
Localities: Sparrman 14. Thunberg 33.
Specimens: Temminck (1807:98, no.276). Holthuysen (Lichtenstein 1793:43, no.410). Joseph Banks (from Masson).
References: Thunberg 1784; ms. (10.7.3).

262. Euplectes progne (Boddaert, 1783) Longtailed widow
(Passeriformes: Ploceidae)
Drawings: PA 59, 66, UBL 232, 233.
Localities: Thunberg 4. Levaillant 30.
Specimens: Temminck (1807:104, no.271). Raye (1827, nos.371-374). Holthuysen (Lichtenstein 1793:45, nos.425, 426). Edinburgh Museum (from Dufresne). Boers (1797:32, no.287).
References: Thunberg 1784; ms. (10.7.3).

263. Lagonosticta rubricata (Lichtenstein, 1823) Bluebilled firefinch
(Passeriformes: Estrildidae)
Drawing: UBL 171.

264. Uraeginthus granatinus (Linnaeus, 1766) Violeteared waxbill
(Passeriformes: Estrildidae)
Drawings: UBL 199.
Localities: Levaillant 64.
Specimens: Raye (1827, no.346). Edinburgh Museum (from Dufresne).

265. Estrilda astrild (Linnaeus, 1758) Common waxbill
(Passeriformes: Estrildidae)
Drawings: GA 258, PA 76, UBL 171, IPA 379.
Localities: Thunberg 16, 27.
References: Thunberg 1784; ms. (10.7.3).

266. Estrilda erythronotos (Vieillot, 1817) Blackcheeked waxbill
(Passeriformes: Estrildidae)
Specimens: Temminck (1807:113, 237, no.292).

267. Amadina fasciata (Gmelin, 1789) Cutthroat finch
(Passeriformes: Estrildidae)
Specimens: Temminck (1807:99, 228, no.641).

268. Vidua macroura (Pallas, 1764) Pintailed whydah
(Passeriformes: Viduidae)
Drawings: GA 282, B 40.
Localities: Levaillant 65.
Specimens: Holthuysen (Lichtenstein 1793:45, nos.421, 422).
References: Thunberg ms. (10.7.3).

269. Vidua purpurascens (Reichenow, 1883) Purple widowfinch
(Passeriformes: Viduidae)
Drawings: UBL 55 (identity uncertain).

270. Serinus canicollis (Swainson, 1838) Cape canary
(Passeriformes: Fringillidae)
Drawings: TC 747, IPA 351(b), SAPL-Z7.

271. Serinus tottus (Sparrman, 1786) Cape siskin
(Passeriformes: Fringillidae)
Drawings: IPA 381.
References: Sparrman 1786, no.18. Thunberg ms. (10.7.3).

272. Serinus alaria (Linnaeus, 1758) Blackheaded canary
(Passeriformes: Fringillidae)
References: Thunberg ms. (10.7.3).

273. Serinus sulphuratus (Linnaeus, 1766) Bully canary
(Passeriformes: Fringillidae)
References: Thunberg 1784; ms. (10.7.3).

274. Serinus flaviventris (Swainson, 1828) Yellow canary
(Passeriformes: Fringillidae)
References: Thunberg ms. (10.7.3).

275. Emberiza flaviventris Stephens, 1815 Goldenbreasted bunting
(Passeriformes: Fringillidae)
Drawings: UBL 76.
Specimens: Raye (1827, no.330). Edinburgh Museum (from Dufresne).

276. Emberiza capensis Linnaeus, 1766 Cape bunting
(Passeriformes: Fringillidae)
Drawings: FC 154a.
Specimens: Joseph Banks (from Masson). Temminck (1807:105, no.308). Holthuysen (Lichtenstein 1793:44, no.420). Boers (1797:31, no.283).
References: Forster 1844:405. Thunberg ms. (10.7.3).

PART 4

Sources

Manuscript sources

This section enumerates the manuscripts, letters and drawings which I consulted in whole or in part in the course of this study. Some could be seen in the original indicated by a * in front of the entry; others were studied from photocopies, photographs or microfilm provided by their caretakers. They are arranged following the depositories in alphabetical order according to the towns where they are located. Most manuscripts are described in detail in the main text of this book, which is not repeated, and reference is made to the relevant sections.

Amsterdam, Rijksmuseum (Rijksprentenkabinet)
*1. Gordon Atlas, collection of 455 drawings associated with R.J.Gordon (7.6).
*2. Drawings by Aert Schouman (12.12).

Amsterdam, library of the University of Amsterdam (Manuscript room)
*3. Petrus Camper's papers (A X): drawing of black rhinoceros (7.4.3)
*4. No.50 C 2: Letter by Levaillant to Denoux (12.2.7).

Berlin, Zentrales Archiv der Akademie der Wissenschaften der DDR
5. Letter by Sparrman to J.R.Forster, 8 September 1796, no.107, 3 pp. (Hoare 1982,I:78, note 4).

Canberra, National Library of Australia
6. Banks Papers, NLA MS.9: Letters by J.R.Forster to Banks, 1780 (6.4).

Cape Town, Library of Parliament
*7. Watercolours connected with F.Levaillant (12.8).

Cape Town, South African Library
8. Collection of 55 drawings attributed to Claudius (3.2.4).

Chalons-sur-Marne, Archives de la Marne
9. 'Inventaire d'après le décès de Mr.f.Levaillant' – M.Guy, notaire, 4 February 1825 (12.2.7).

Edinburgh, Royal Scottish Museum
*10. 'Catalogue des collections d'objets naturelle formant le cabinet de Mr.L.Dufresne ... 1815' (12.20).
*11. 'Catalogue des collections d'histoire naturelle formant le cabinet de Mr.L.Dufresne ... 1818' (12.20).

Glasgow, Hunterian Museum
12. Two drawings by Fred.Birnie of springbok (6.7).

Gotha, Forschungsbibliothek
13. Codex Gothanus Membranatius I 131: collection of 32 gouaches by George Forster (6.5.2).

Helsinki, Svenska Litteratursällskapets
14. C.F.Hornstedt's 'Descriptiones Animalium praestantiorum' (5.82).

Hilversum, Mr.N.J.A.C.Swellengrebel
*15. Swellengrebel Archives including letters, expedition journals and drawings (5.75).

Johannesburg, Africana Museum
*16. Drawings attributed to R.J.Gordon, nos. 61/1247, 61/1248, 61/1249, 61/384, 72/1021 (7.4.3).

Johannesburg, Brenthurst Library
*17. Gordon Manuscripts (formerly in Country Archives, Stafford) (7.5).
*18. Two zoological drawings attributed to Gordon (7.4.3).
*19. Paterson Albums: collection of 304 watercolours (11.5).
20. Paterson's account of four journeys (11.4).

Kew, Royal Botanic Gardens
21. Letters from Paterson to William Forsyth, 1781-1803, and a short unfinished account of the first journey in South Africa, 6-13 October 1779; parts were cited in *The Cottage Gardener* for 1852 (11.2).

Lausanne, Archives Cantonnales
*22. DG 111-6: Louis Fevot, notaire, Registre 1 Oct. 1804-29 Mars 1806 (7.3).

Leiden, Rijksmuseum van Natuurlijke Historie
*23. Watercolours of birds in Joan Raye's copy of Levaillant's *Histoire Naturelle des Oiseaux d'Afrique* (12.10).
*24. List of animals transferred from the collection of Leiden University, 1 May 1834 (7.10).

Leiden, Universiteits Bibliotheek (University Library)
*25. Watercolours of birds and mammals in Joan Raye's copy of Levaillant's travel accounts, 1370 D 1-4 (12.9).
*26. Watercolours in Joan Raye's copies of Levaillant's bird books (12.7).

London, British Library
27. Letter by Levaillant to Egerton, 17 December 1803 (Egerton ms. f.51) (12.2.7).

London, British Museum
*28. Print Room 199*B 4: Banks collection, Natural History drawings, various artists (including Masson) (8.4).
29. Add.MS. 8094 f. 132-135: Letters from J.N.S.Allamand to J.Banks (7.8.1).

London, British Museum (Natural History)
*30. Forster Collection, drawings by George Forster (6.5.1).
*31. Sol Z1: Daniel Solander: 'Animalia Javensia & Capensia' (5.69).
*32. Zoology 89 f d: Jonas Dryander: 'Catalogue of drawings of animals in the library of Sir J.Banks' (6.6.1).
*33. Zoology 89 f F: Daniel Solander: 'Catalogue of drawings collected in Cook's 2nd voyage by George Forster' (6.6.2).
*34. '4 MS.Catalogues of the birds in the drawings of J.G.A.Forster & W.W.Ellis from Capt.Cook's second voyage ...' (8.6).
35. Drawings by George Raper, 'Collection of views/sketches and natural history in a voyage to Botany Bay' (8.4.2).

London, Linnean Society of London
*36. Letter by J.R.Forster to Linnaeus, 19 November 1772 (6.4.1).
*37. Letters by A.Sparrman to Linnaeus, 1771-1775 summarized in Karsten 1957b:127-133 (9.2).
38. Papers of the Society for the Promotion of Natural History: Paper by Paterson 'On the vegetable poisons of the Cape of Good Hope', read 13 December 1785 (11.2).

London, Royal College of Surgeons of England
*39. Hunterian Drawing book, II:171: coloured drawing 'Camelopardalis in an upright position.'

London, Royal Society
40. Letters and Papers, Decade VII vol.67 no.172: J.R.Forster's 'Memoir on the 'Nghoo' (6.4.5).

New Haven, Yale University Library
41. Levaillant's 'Atlas Supplementaire', collection of engravings (most published) composed by the author, with notes (12.13).

Paris, Archives de Paris
42. Papers connected with the sale by Hocquard of Levaillant's papers and drawings (12.2.7).

Paris, Bibliothèque Nationale
43. Letter by Levaillant to Notaire Lainé, 1796 (12.2.7).

Rotterdam, Museum Boymans-van Beuningen
44. Drawings of birds by Aert Schouman (7.9).

Stockholm, Universitets Bibliothek
*45. Letter by F.Masson to Bergius, 27 December 1775 and reply 6 December 1776, in Bergius Brevsamlung XVI: 655-656, 656-658 (see Karsten 1961:38-40).
*46. Letters by A.Sparrman to various correspondents (Ekeberg, Lindvall, P.Wargentin, P.J.Bergius, A.Modeer) in letter collection of P.J.Berg (Bergianska Brevsamlung), vols. 16-19.
*47. Note on Naturalia by Sparrman, in Bergianska Brevsamlung, XVI: 748-749 (9.8; see Löwegren 1952:365).
*48. Notes by Sparrman, in Archives of the Kg.Vetenskaps Akademien, Prot.Bil.1786-90: 121-123, 125 and Prot.4.2.1784:237.

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*49. Letters by F.Masson to Joseph Banks, 75 letters dated between 1776 and 1794; Brabourne collection A 80-1 (8.2).
50. FM4/4791: Letters by W.Paterson to Joseph Banks 1777, 1784, 1790.
51. Doc.489: J.R.Forster to Thomas Pennant, 19 November 1772.
52. Doc.489b: J.R.Forster to Thomas Pennant, 23 June 1772.
*53. Collection of drawings, once attributed to George Forster (6.5).

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54. Fagel Archief: Letters by R.J.Gordon to Fagel 1778-1784 (7.4.1).
55. Plettenberg Collection 4: Letter by R.J.Gordon to Van Plettenberg (7.4.1 list no.3).

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*56. Inv.Willem V, 18 no.335 I: Letter from R.J.Gordon to Willem V, 30 June 1784 (7.4.1 list no.5).
*57. Idem: R.J.Gordon's 'Memories, de pepinière concernerende', 1789 (7.4.2).

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*58. Watercolours connected with Levaillant in a copy of his Voyage, 237 J 14, 15 (12.11).

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*59. C.P.Thunberg's correspondence, 36 volumes of letters to Thunberg from various correspondents (10.7.1). These include: (1) Three letters to W.Paterson, 11 April 1779, 11 July 1780, 13 April 1790 (ms.G 300u, f.174, 175); (2) letters by F.Masson, 21 March 1793, 15 May 1793, 29 November 1795 (G 300s); (3) letters by A.Sparrman, November 1772, 27 March 1775, 29 April 1775, 22 April 1776 (G 300å).
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— 1767. Beschrijving van eene zeer vreemde en geheel nieuwe soort van Africaansch basterd-mormeldier, zich onthoudende op de steen-of klipbergen van de Kaap de Goede Hoop; bewaard wordende in het museum van zijne doorluchtigste hoogheid. Amsterdam, Pieter Meyer, pp.1-8, pl.3 (Also, 1767: Description d'une très-étrange et tout-à-fait nouvelle espece de Marmote-batarde d'Afrique. Amsterdam, pp.1-8, pl.3).
— 1769. Beschrijving van eenen Afrikaanschen, nog geheel onbekenden roof-vogel, de Sagittarius genaamd, op de Kaap de Goede Hoop vallende ... Amsterdam, Pieter Meyer, pp.1-8, pl.8. (Also, 1769: Description d'un oiseau de proie, nommé le Sagittaire, tout-à-fait inconnu jusqu'ici; apporté du Cap de Bonne Espérance ... Amsterdam, Meyer, pp.1-8, pl.8).
— 1771. Beschrijving van eene zeldzaame Afrikaansche nog niet beschreeven kat-soort, genaamd de Bizaam-kat, op de Kaap de Goede Hoop vallende, en bewaard wordende in het museum van zijne doorluchtigste hoogheid. Amsterdam, Pieter Meyer, pp.1-6, pl.8 (Also, 1771: Description d'une espèce singuliere de chat africain, qui n'a point encore été décrit, nommé chat-bizaam, venu du Cap de Bonne Espérance ... Amsterdam, pp.1-6, pl.8).
— 1774. Beschrijving van de zeer zeldzaame, langstaartige, ruwgeschubde slang-hagedis, mogelijk in Africa vallende? gelijk mede, van de zeldzaame Africaansche glad-geschubde worm-hagedis van de Kaap de Goede Hoop. Amsterdam, Pieter Meyer, pp.1-8, pl.1 (Also, 1774: Description d'une très rare lézard-serpent, à queue longue et écailles rudes, peut-être de l'Afrique? et d'un rare lézard-ver, africain, à écailles lisses, du Cap de Bonne Espérance. Amsterdam, pp.1-8, pl.1).
— 1783a. Beschrijving van de nog genoegzaam onbekende en een der grootste soorten van harte-bokken, genaamt Coudou ... Amsterdam, erven P.Meyer en G.Warnars, pp.1-15, pl.16 (Also, 1783: Description d'un animal peu connu jusqu'ici qui porte le nom de Coudou. Amsterdam, pp.1-14, pl.16).
— 1783b. Beschrijving van het nog genoegzaam onbekend Africaansch dier, aan de Kaap de Goede Hoop, bekend onder de verkeerde benaaming van Eland, doch bij de Hottentotten aldaar genaamd Canna. Amsterdam, erven P.Meyer en G.Warnars, pp.1-12, pl.17 (Also, 1783: Description d'un animal africain inconnu jusqu'ici, qui porte au Cap de Bonne Espérance le nom impropre d'élan, et qui est appellé Canna chez les Hottentots. Amsterdam, pp.1-12, pl.17).
— 1784a. Beschrijving van een nieuw viervoetig dier, aan de Kaap de Goede Hoop geheeten: Boschbuffel, en bij de Hottentotten aldaar genaamd Gnou. Amsterdam, erven P.Meyer en G.Warnars, pp.1-14, pl.18 (Also, 1784: Description d'un nouveau quadrupède connu au Cap de Bonne-Espérance sous le nom de Buffle du Bois et appellé Gnou chez les Hottentots. Amsterdam, pp.1-13, pl.18).
— 1784b. Beschrijving eener nieuwe soort van kleenen hartebok, by de Hollandsche volksplanting aan de Kaap de Goede Hoop bekend, onder de benaaming van pronkbok. Amsterdam, erven P.Meyer en G.Warnars, pp.1-14, pl.19 (Also, 1784: Description d'une nouvelle espèce de petite gazelle connue aux colonies hollandoises du Cap de Bonne-Espérance sous le nom de Pronk-Bok, ou gazelle de parade. Amsterdam, pp.1-13, pl.19).
— 1787a. Beschrijving van een genoegzaam onbekende Africaansche diertje, van de Kaap de Goede Hoop; aldaar algemeen onder de benaming Mol bekend, en door mij, in onderscheiding van andere, genaamd: de Groenglanzende mol. Amsterdam, erven P.Meyer en G.Warnars, pp.1-12, pl.20 (Also, 1787: Description d'un animal du Cap de Bonne-Espérance, peu connu jusqu'ici, qu'on y met au rang des Taupes, & auquel j'ai donné le nom distinctif du Taupe verdâtre luisante. Amsterdam, pp.1-11, pl.20).
— 1787b. Beschrijving van het nog weinig bekende, en 't allerhoogste van de viervoetige dieren, die, in de afgeleegene wildernissen van Africa, gevonden worden, en 't welk aan de Kaap de Goede Hoop bekend is, onder den naam van: Kameel-paard (Camelopardalis) en bij oude en latere schrijvers onder dien van giraffe. Amsterdam, erven P.Meyer en G.Warnars, pp.1-44, pls.21a,b (Also 1787: Description du plus grand de tous les quadrupèdes, & encore peu connu jusqu'ici, qui habite les déserts de l'Afrique, & qui est designé dans les colonies hollandoises du Cap de Bonne-Espérance sous le nom de chameau-léopard (Camelopardalis) & sous celui de giraffe chez les auteurs anciens & moderns. Amsterdam, pp.1-46, pls.21,22).
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Total 879 references
(In eigen bezit: 169 = 19,2%).

Index

- Cape Town, Library of Parliament 212
- " , De Wet Museum 64

Cape turtle dove, see Streptopelia capicola

– Pinkbacked pelican, see Pelecanus rufescens

Procerops purpureus 320

Redchested flufftail, see Sarothrura rufa
Red bishop, see Euplectes orix